					ST DEPARTMENT DIVISION O		TURAL RESC				AMEN	FO DED REPOR	RM 3	
		AP	PLICATION F	OR PER	RMIT TO DRILL					1. WELL NAME and N	UMBER NBU 922	-35P1CS		
2. TYPE O	F WORK	DRILL NEW WELL	REENTEI	R P&A WE	ELL DEEPEN	WELL [)			3. FIELD OR WILDCA				
4. TYPE OI	F WELL					***************************************	×			5. UNIT or COMMUNI	TIZATION	AGREEM	ENT NAM	IE .
6. NAME C	F OPERATOR				Methane Well: NO					7. OPERATOR PHONE				
8. ADDRES	S OF OPERATO		KERR-MCGEE OI	L & GAS C	ONSHORE, L.P.					9. OPERATOR E-MAII	720 92 L	9-6515		
10 MINER	AL LEASE NUM		P.O. Box 17377		er, CO, 80217 MINERAL OWNERS	SHID				julie.ja 12. SURFACE OWNER		anadarko	com	
	, INDIAN, OR ST				400	DIAN 🔵	STATE (FEE	\odot	-	DIAN \Bigg	STATE	(F	EE 🔵
13. NAME	OF SURFACE (OWNER (if box 12 =	= 'fee')							14. SURFACE OWNER	R PHONE	(if box 12	= 'fee')	
15. ADDRI	ESS OF SURFA	CE OWNER (if box	12 = 'fee')							16. SURFACE OWNE	R E-MAIL	. (if box 12	= 'fee')	
	ALLOTTEE OF	R TRIBE NAME			INTEND TO COMM		RODUCTION	FROM		19. SLANT				
(if box 12	= 'INDIAN')				ATT 1		ling Application	on) NO	\bigcirc	VERTICAL DIF	RECTION	AL 📵 H	IORIZONT	AL 🔵
20. LOCA	TION OF WELL			FOOTA	AGES	QTI	R-QTR	SEC	CTION	TOWNSHIP	R	ANGE	МЕ	RIDIAN
LOCATIO	N AT SURFACE		20	69 FSL	619 FEL	N	NESE	3	35	9.0 S	2:	2.0 E		S
Top of U	ppermost Prod	ucing Zone	88	33 FSL 4	494 FEL	s	SESE	3	35	9.0 S	2:	2.0 E		S
At Total	Depth		88	33 FSL 4	494 FEL	s	SESE	3	35	9.0 S	2:	2.0 E		S
21. COUN	TY	UINTAH		22.	DISTANCE TO NEA	REST LE		eet)		23. NUMBER OF ACR		ILLING UN 00	IT	
					DISTANCE TO NEA oplied For Drilling		leted)	POOL		26. PROPOSED DEPT		TVD: 870	8	
27. ELEVA	TION - GROUN	D LEVEL		28.	BOND NUMBER					29. SOURCE OF DRIL WATER RIGHTS APPR			PPI ICAR	ı F
		4998				WYB00	00291					3496		
Ctrim as	Hole Size	Casing Size	Lamosth	Walah	Hole, Casing		ement Info		1	Cement		Sacks	Yield	Weight
String	11	8.625	0 - 2360	Weigh	_		0.2			Type V		180	1.15	15.8
							-			Class G		270	1.15	15.8
PROD	7.875	4.5	0 - 8898	11.6	I-80 LT	&C	12.	0	Prer	nium Lite High Stre	ngth	290	3.38	12.0
										50/50 Poz		1220	1.31	14.3
					A	ттасні	MENTS							
	VER	IFY THE FOLLO	WING ARE AT	TACHEI	D IN ACCORDAN	ICE WIT	TH THE UTA	AH OIL A	AND GAS	CONSERVATION G	ENERA	L RULES		
₩	ELL PLAT OR MA	AP PREPARED BY L	ICENSED SURV	EYOR OR	R ENGINEER		СОМ	PLETE DE	RILLING PI	_AN				
AFI	FIDAVIT OF STA	TUS OF SURFACE	OWNER AGREE	MENT (IF	FEE SURFACE)		FORM	1 5. IF OPI	ERATOR IS	S OTHER THAN THE LI	EASE OW	/NER		
DIR	ECTIONAL SUF	RVEY PLAN (IF DIR	ECTIONALLY O	R HORIZO	ONTALLY DRILLED))	торо	GRAPHIC	CAL MAP					
NAME La	ura Abrams			TITLE	Regulatory Analyst	: II			PHONE 7	20 929-6356				
SIGNATU	RE			DATE	11/01/2013				EMAIL La	aura.Abrams@anadarko	o.com			
	BER ASSIGNED 047541730	000		APPRO	OVAL				bol	Rejill				
				1					Permi	it Manager				

NBU 922-35I Pad Drilling Program

1 of 4

Kerr-McGee Oil & Gas Onshore, L.P.

NBU 922-35P1CS

 Surface:
 2069 FSL / 619 FEL
 NESE

 BHL:
 883 FSL / 494 FEL
 SESE

Section 35 T9S R22E

Uintah County, Utah Mineral Lease: UTU-010954-A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta Green River Birds Nest Mahogany Wasatch Mesaverde Sego TVD	0 - Surface 1,169' 1,433' 1,910' 4,245' 6,458' 8,708' 8,708'	Water Water Gas Gas Gas
TD	8,898'	

3. <u>Pressure Control Equipment</u>

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. Evaluation Program:

Please refer to the attached Drilling Program

NBU 922-351 Pad Drilling Program
2 of 4

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8708' TVD, approximately equals 5,312 psi 0.61 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,419 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

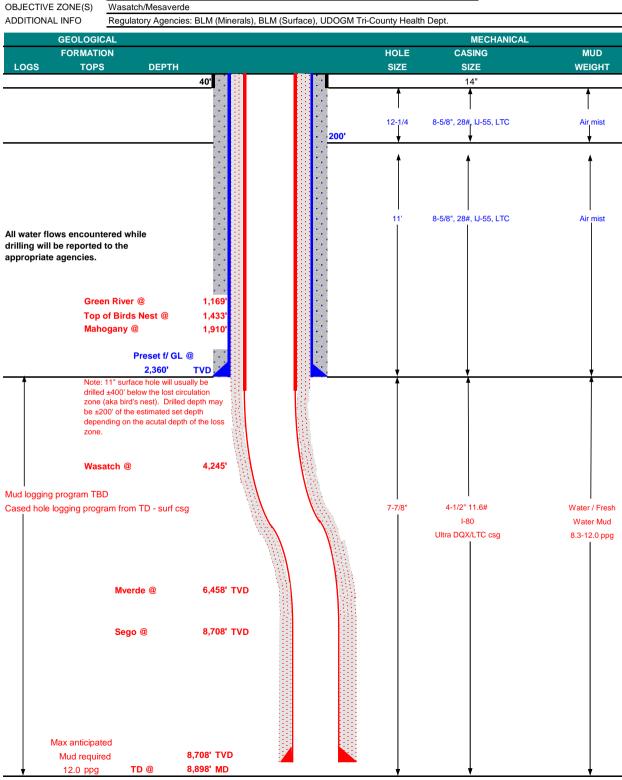
10. <u>Other Information:</u>

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP <u>DRILLING PROGRAM</u>

COMPANY NAME KER	R-McGEE O	IL & GAS ONSI	HORE LP	DATE	August	28, 2013	
WELL NAME NBU	J 922-35P	1CS		TD	8,708'	TVD	8,898' MD
FIELD Natural Butte	S	COUNTY	Uintah STATE	Utah	FINISH	HED ELEVATION_	4,998'
SURFACE LOCATION	NESE	2069 FSL	619 FEL Sec	35 T 9S	R 22E		
	Latitude:	39.990930	Longitude: -10	9.399931		NAD 83	
BTM HOLE LOCATION	SESE	883 FSL	494 FEL Sec	35 T 9S	R 22E		
	Latitude:	39.987674	Longitude: -10	9.399481		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/M	lesaverde					
ADDITIONAL INFO	Pegulatory	Agencies: BLM	(Minerale) BLM (Su	rface) LIDOGN	1 Tri-County He	aalth Dent	





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAI	<u>M</u>							DESIGN	FACTORS	
									LTC	DQX
	SIZE	INTE	RVAL	WT.	GR.	CPLG.	BURST	COLL	APSE	TENSION
CONDUCTOR	14"	0-	40'							
							3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,360	28.00	IJ-55	LTC	2.29	1.70	6.01	N/A
							7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to 5,000	11.60	I-80	DQX	1.11	1.17		3.17
							7,780	6,350	223,000	267,035
	4-1/2"	5,000	to 8,898'	11.60	I-80	LTC	1.11	1.17	6.04	

Surface Casing:

(Burst Assumptions: TD =

12.0

ppq)

0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @

0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGI	HT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface, o	ption 2 will	be utilized		
Option 2 LEAD	1,860'	65/35 Poz + 6% Gel + 10 pps gilsonite	170	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,738'	Premium Lite II +0.25 pps celloflake + .4% FL-52	290	35%	12.00		3.38
		+ .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II +					
		1.2% Sodium Metasilicate + .05 lbs/sk Static Free					
TAIL	5,160'	50/50 Poz/G + 10% salt + .05 lbs/sk Static Free	1,220	35%	14.30		1.31
		+ 1.2% Sodium Metasilicate + .5 % EC-1					
		+.002 gps FP-6L + 2% Bentonite II					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

centralizer on the first 3 joints and one every third joint thereafter

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper

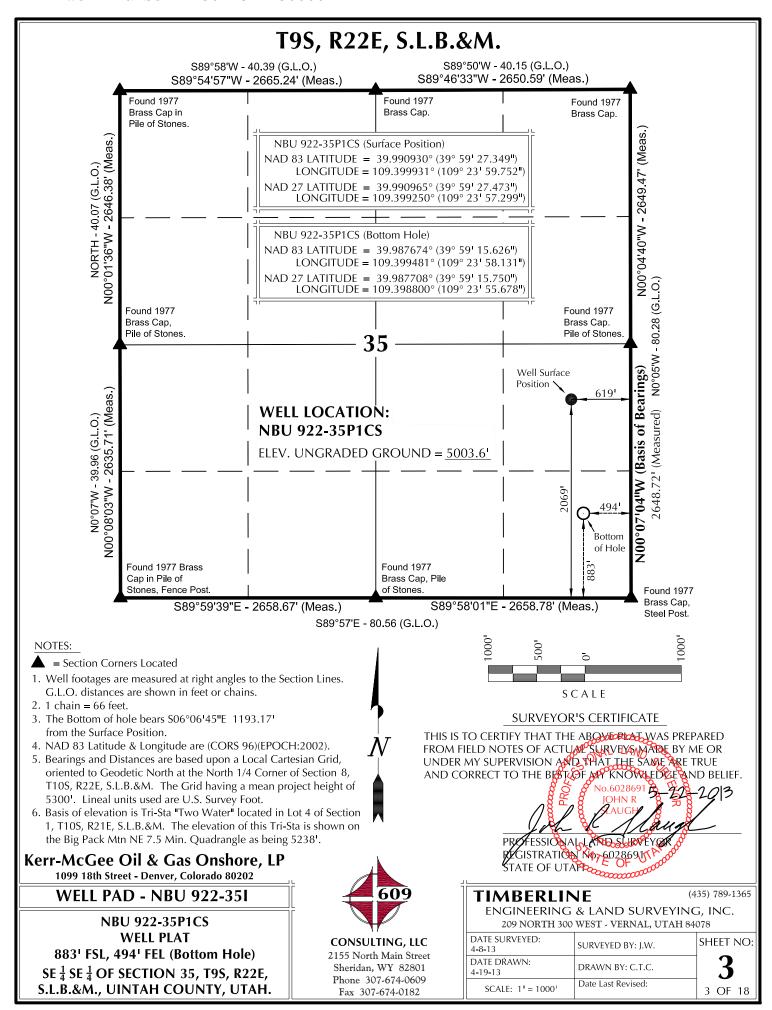
Surveys will be taken at 1,000' minimum intervals.

and lower kelly valves.

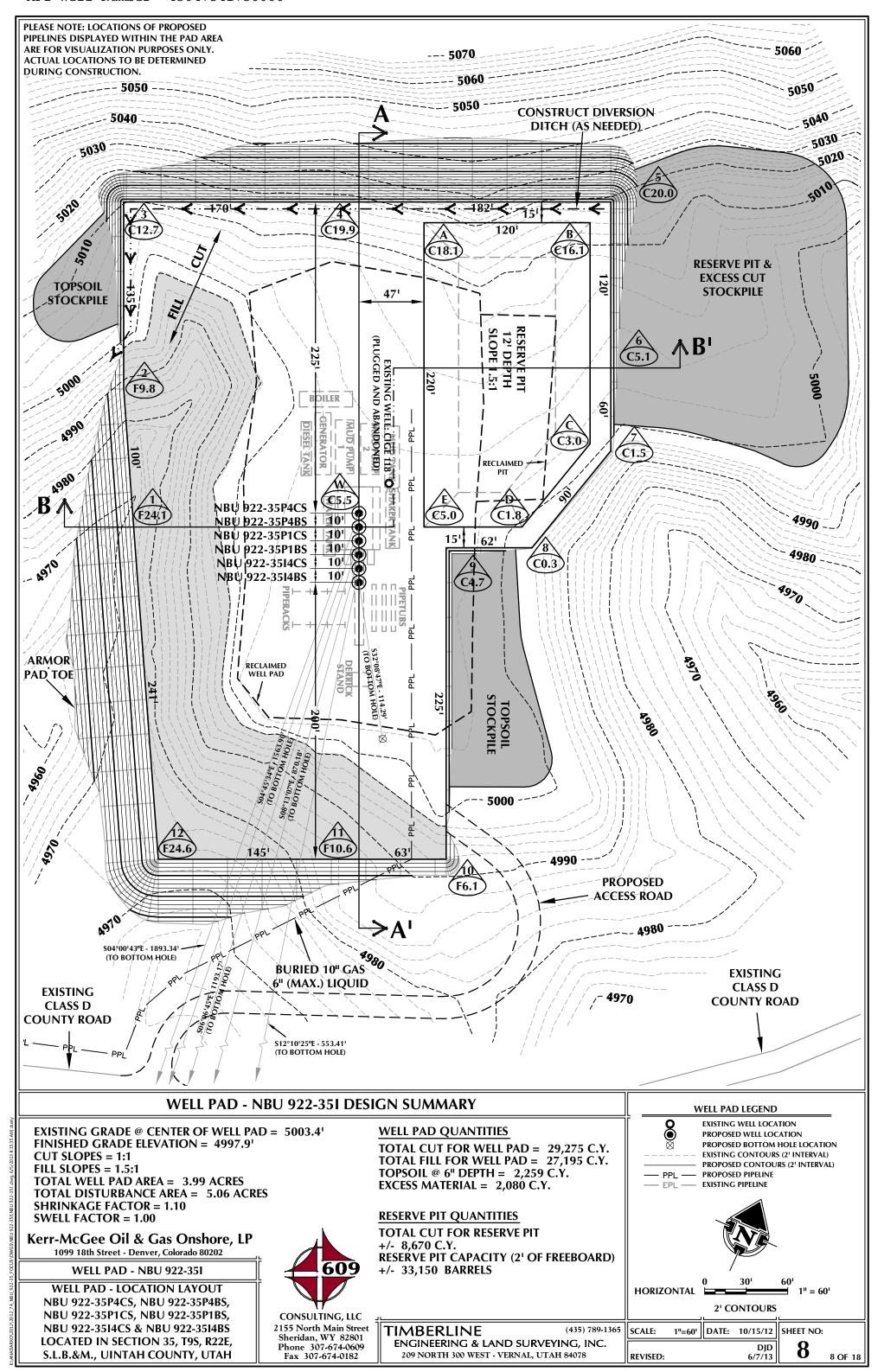
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

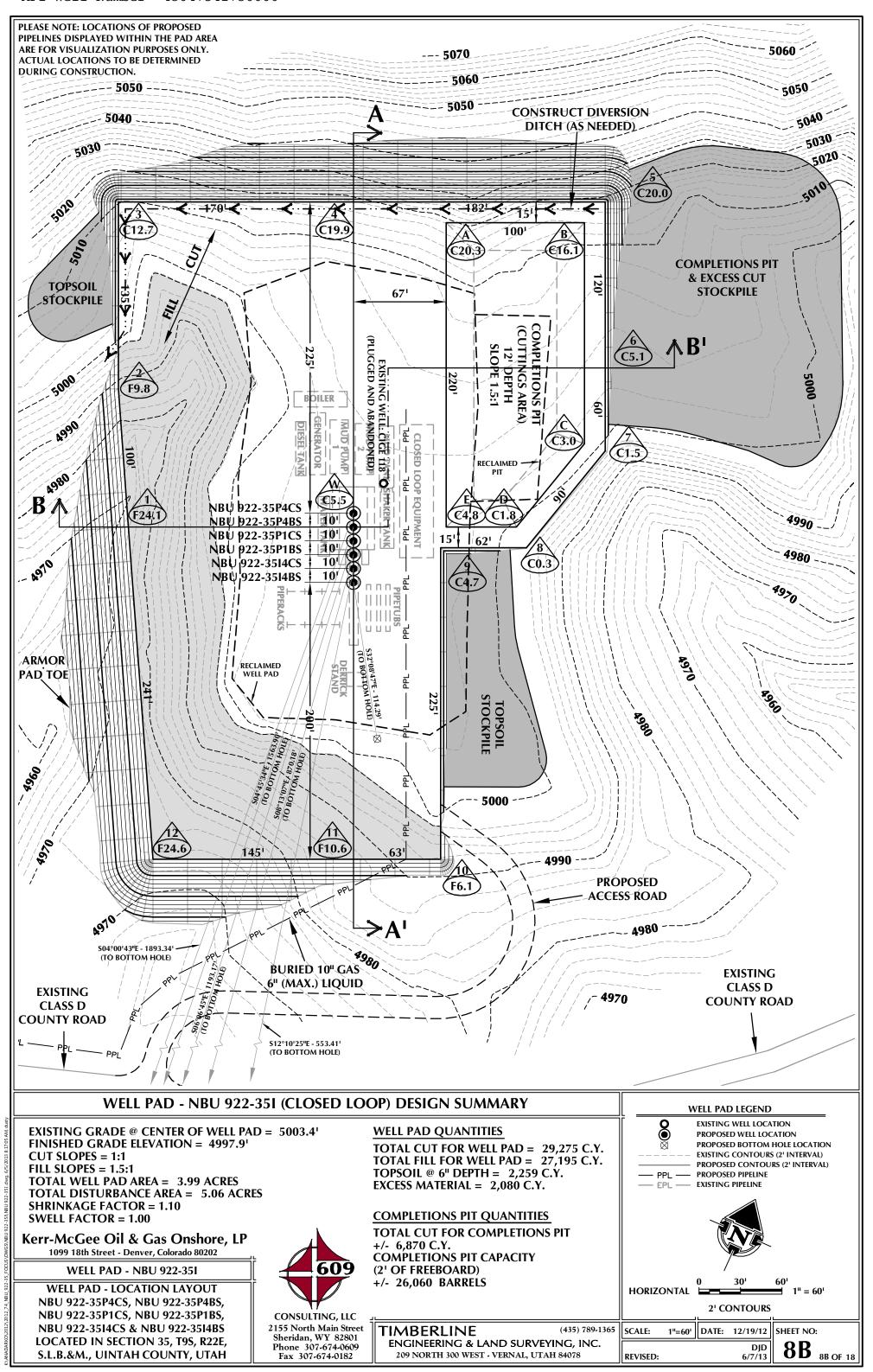
ii cationic maa looses are t	best ved on dement doesn't readil surface on a well on the pad, a by rooming	y be asea. Wit	Tooment baskets above and below it.
DRILLING ENGINEER:		DATE:	
	Nick Spence / John Tuckwiller / Brian Cocchiere / Tyler Elliott	-	
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young	_	

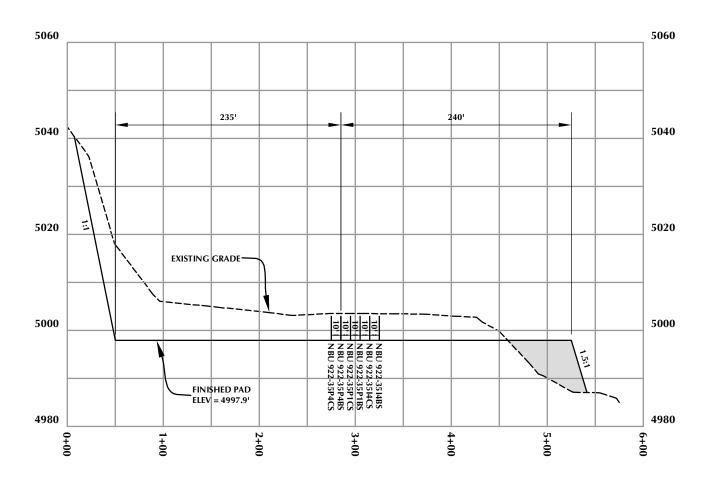
^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



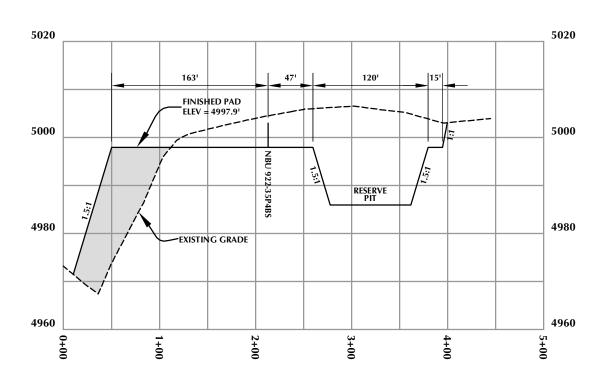
			SURFACE POS	SITION				В	OTTOM HOLE		
WELL NAME	NAC	D83		NAD27	UTUS.	FOOTAGE	NAC	083	NAE		F007: 5-5
NBU	LATITUDE 39°59'27.530"	109°23'59.8		DE LONG 654" 109°23		2088 FSL	LATITUDE 39°59'08.869"	LONGITUDE 109°23'58.171"	39°59'08.993"	LONGITUDE 109°23'55.718"	
922-35P4CS	39.990980°	109.399960	9.99101	5° 109.39	9278°	627' FEL	39.985797°	109.399492°	39.985831°	109.398811°	498' FEL
	39°59'27.439" 39.990955°	109°23'59.8 109.399945°	03" 39°59'27. 39.990990			2078' FSL 623' FEL	39°59'12.040" 39.986678°	109°23'58.151" 109.399486°	39°59'12.164" 39.986712°	109°23'55.698" 109.398805°	520' FSL 496' FEL
NBU	39°59'27.349"	109.399943 109°23'59.7	52" 39°59'27.	473" 109°23		2069' FSL	39°59'15.626"	109.399466* 109°23'58.131"	39°59'15.750"	109.396605° 109°23'55.678"	
	39.990930° 39°59'27.258"	109.399931				619' FEL	39.987674° 39°59'18.748"	109.399481°	39.987708° 39°59'18.873"	109.398800°	494' FEL
922-35P1BS	39.990905°	109°23'59.7 109.399917°	° 39.990940		9235°	2060' FSL 615' FEL	39°59'18./48" 39.988541°	109°23'58.111" 109.399475°	39°59°18.873° 39.988576°	109°23'55.658" 109.398794°	1199' FSL 492' FEL
	39°59'27.167" 39.990880°	109°23'59.6		291" 109°23		2051 ¹ FSL	39°59'21.821" 39.989395°	109°23'58.155"	39°59'21.945" 39.989429°	109°23'55.702" 109.398806°	1510' FSL 495' FEL
	39°59'27.076"	109.399903° 109°23'59.5			57.145"	611' FEL 2042' FSL	39°59'26.120"	109.399488° 109°23'58.818"		109.396606° 109°23'56.364"	
	39.990854°	109.399888				607' FEL	39.990589°	109.399672°	39.990623°	109.398990°	546' FEL
	39°59'27.811" 39.991059°	109°23'59.7 109.399919°			57.256" 9238°	2116' FSL 615' FEL					
			RELAT	IVE COORD	NATES -	From Surface	Position to Botto	om Hole			
WELL NAME	NORTH		WELL NAME	NORTH	EAST		NAME NOR	TH EAST	WELL NAM	E NORTH	EAST
NBU 922-35P4CS	-1888.7'		NBU 922-35P4BS	-1558.5	129.8	NBU 922-35	-1186	5.4' 127.0'	NBU 922-35P1B9	-861.2	124.4'
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST			\	/ /		1
NBU 922-3514CS	-541.0'		NBU 922-3514BS	-96.8	60.8	ı	\]	/	
922-3314C3	-		344-3314D3	<u> </u>			\	\ _			
				EXISTING	. W/EI	I · CICE 1	\ 18	\		1	
	\			(Dry Hole		L. CIGL	10 🕲				
	\			. ,	/			V			
	\							2-35P4CS Az.			
	\					5 T		22-35P4BS A			
	•	•				6		22-35P1CS			
		\				7		922-35P1BS J 922-35I4C			
		\					01417	U 922-3514C			
		\					3	0 922-33171	AZ. 10 EXIST.	W.11.=333.2027	0 /4.9
		\					- HH//.	ري	1		
		1					- 11117	120 24	\		
		\			75.988		11111	(1/8) 1/2	/		
		•	\			893.34'_		1 /2/20	\		
			\	(To P4Cs	Botto	m Hole)	1111	1 1/5/25	1		
			\				1,11,	1/20	` \		
			\				1111	1 1.50		\	
			\		175.24		, ilii	/ ', ',		1	
			\			1563.90		1 ' '	•	1	
			\	(10 P41	ss Bott	om Hole)		' \	Bottom o	f \	
			`	\			1111	/ _/ _/ _/ _/	بر Hole	1	
l 7 RA	SIS OF BEARI	INGS IS THE		\			1111	1 1/2/1	ರ್ /	\	
EAG	ST LINE OF T					88750°	' '	156	100	1	
/V SEC	CTION 35, T9	9S, R22E,				E 1193.1		ر. ع. ا	2\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\	
	B.&M. WHIO OM GLOBAL			(10 P	ICS RO	ttom Hol	e)	756.A	2///		
	TELLITE OBSI			\				1 '	701		
	AR N00°07'0			•	•			1 ;			
					4z=17	1.78139°	111	\ \ /			
90.	.00		-09			7"E 870.	1 1 .				
				(To	P1BS I	Bottom H	ole) ا	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Az=167		
		_			•				S12°10'25		
	SCALE					\ /		I	(To I4CS Bo	ottom Hole)	
Kerr-McC	Gee Oil & 8th Street - De			.Р			<u> </u>	1 1 1			
WFI	L PAD -	NBU 92	2-351	Ti	4	609	TI	MBERL	INF	(4	35) 789-1365
				 -	1			engineerin		SURVEYINC	G, INC.
	PAD INTE									NAL, UTAH 840	
WELLS - NB	3U 922-35P4 22-35P1CS,				CONSU	JLTING, LL	C DATE 4-8-1	E SURVEYED:	SURVEYED B	Y: J.W.	SHEET NO:
NIDITO	44 JJF I C3, I		JULIUS,	II.	2155 No.	rth Main Stre			1		
							et	E DRAWN:	DDAMALDY	CIC	7
NBU 92	22-3514CS & ED IN SECTION	NBU 922-	3514BS		Sherida	n, WY 8280 307-674-060	DATE 4-19-		DRAWN BY:		7







CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

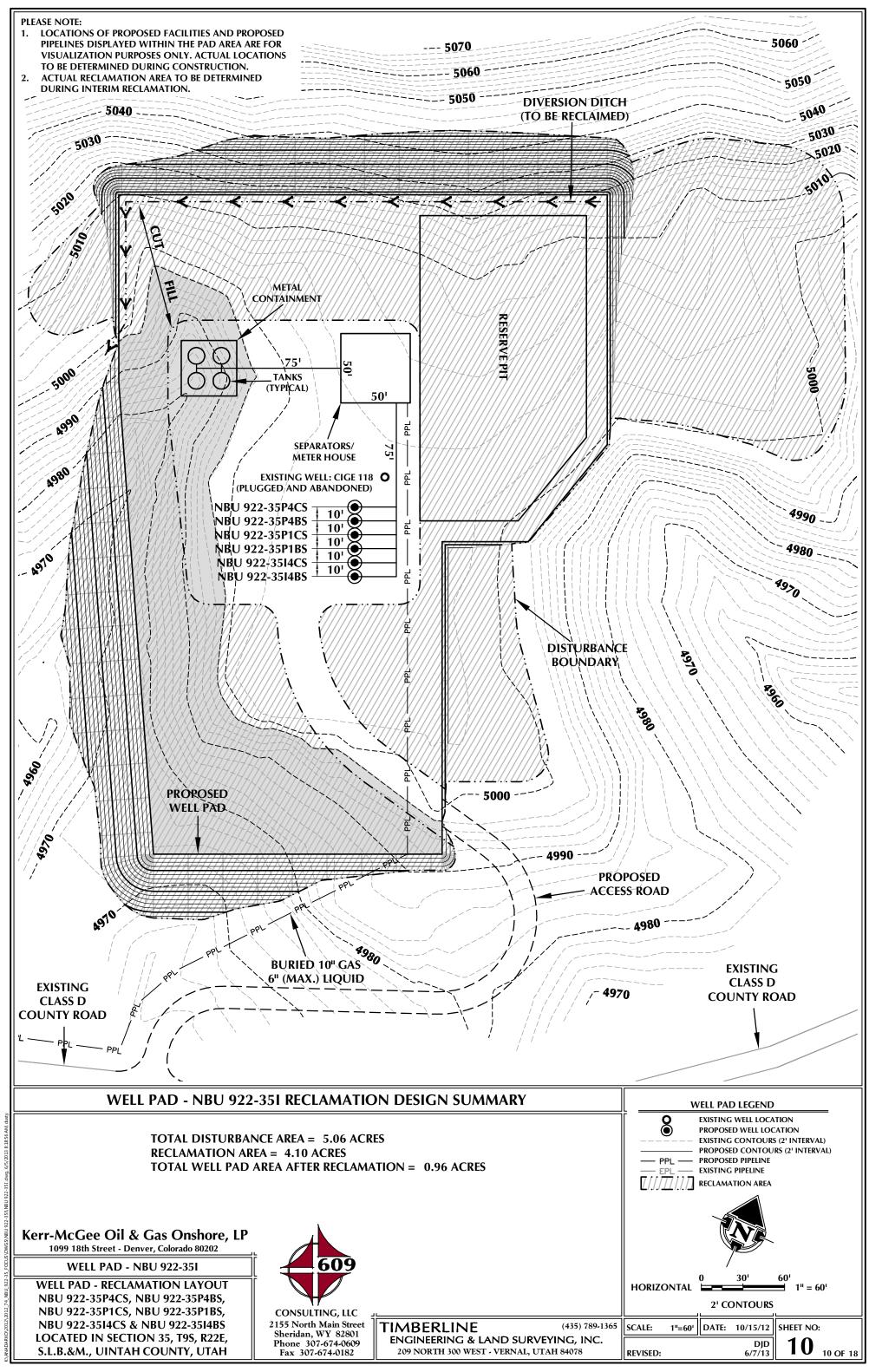
WELL PAD - NBU 922-351
WELL PAD - CROSS SECTIONS

NBU 922-35P4CS, NBU 922-35P4BS, NBU 922-35P1CS, NBU 922-35P1BS, NBU 922-3514CS & NBU 922-3514BS LOCATED IN SECTION 35, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH



HORIZONTAL 0 50' 100' 1" = 100' VERTICAL 0 10' 20' 1" = 20' 1" = 20' 435) 789-1365 | SCALE: 1"=100' DATE: 10/15/12 | SHEET NO:

TIMBERLINE (435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078



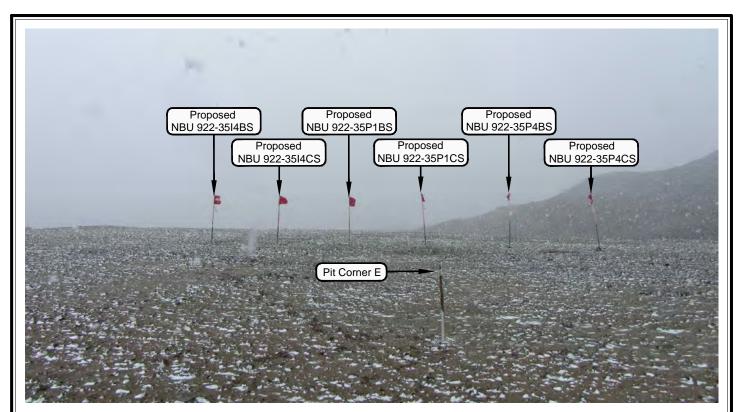


PHOTO VIEW: FROM PIT CORNER E TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHERLY

Kerr-McGee Oil & Gas Onshore, LP

WELL PAD - NBU 922-351

LOCATION PHOTOS
NBU 922-35P4CS, NBU 922-35P4BS,
NBU 922-35P1CS, NBU 922-35P1BS,
NBU 922-35I4CS & NBU 922-35I4BS
LOCATED IN SECTION 35, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



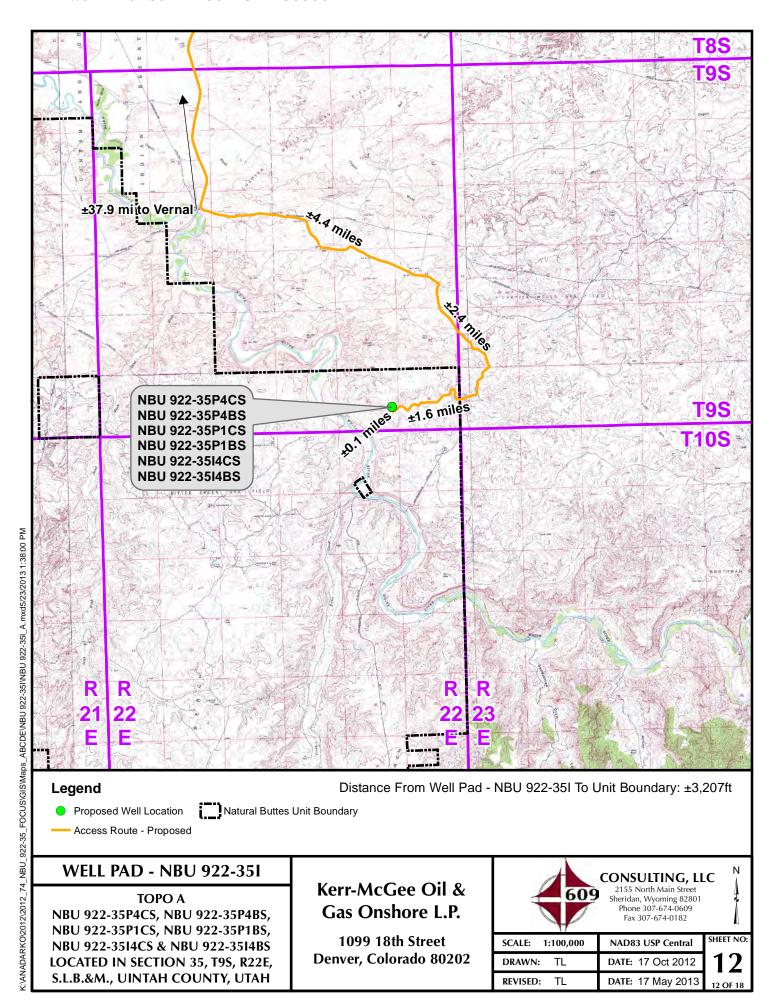
CONSULTING, LLC 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182

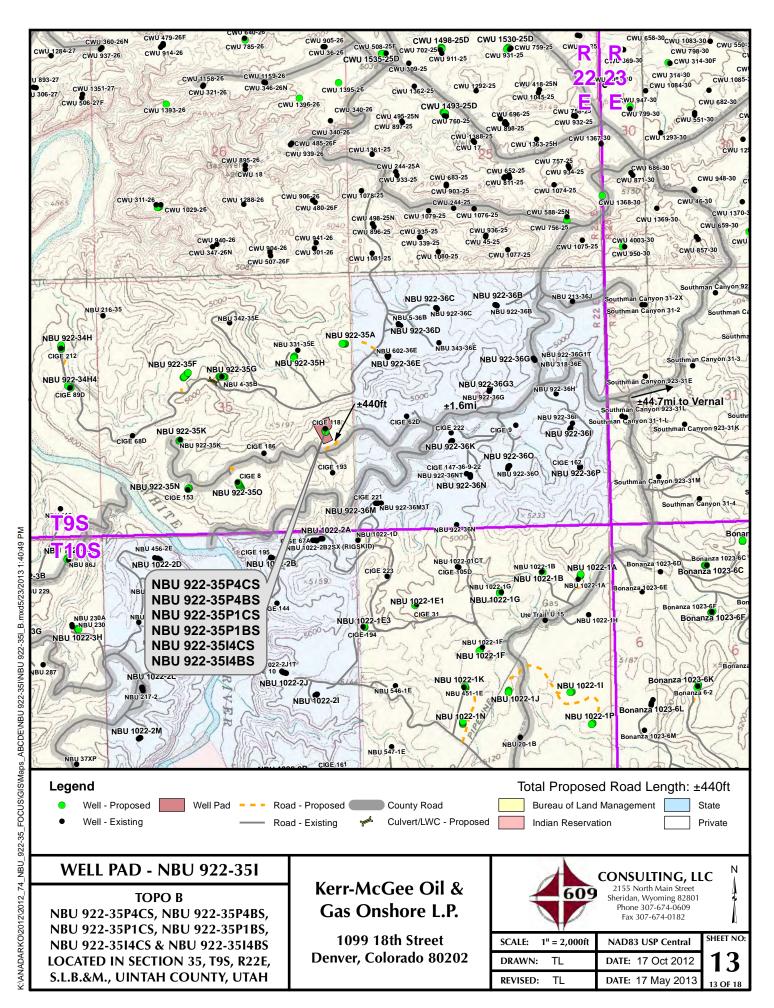
TIMBERLINE

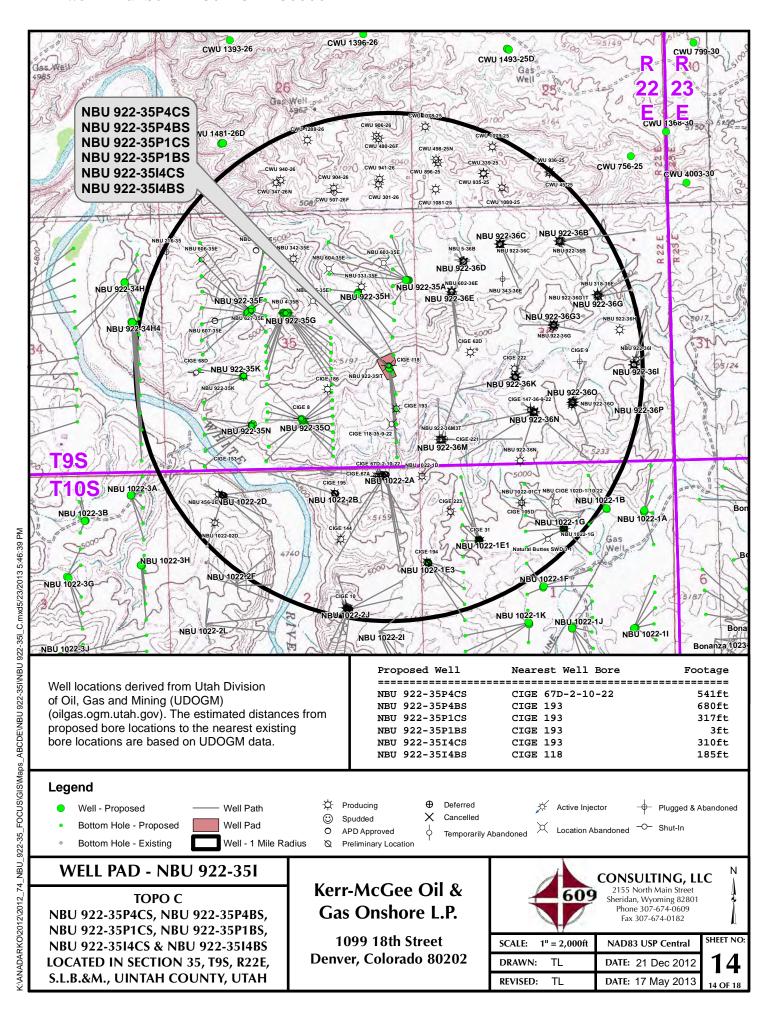
(435) 789-1365

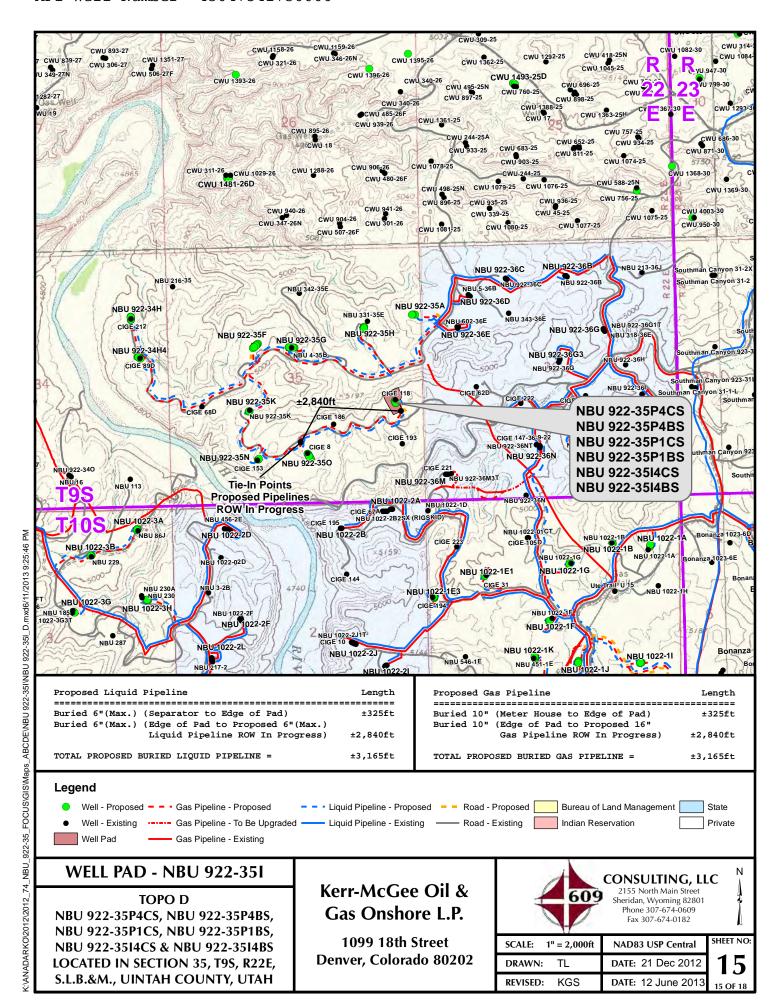
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

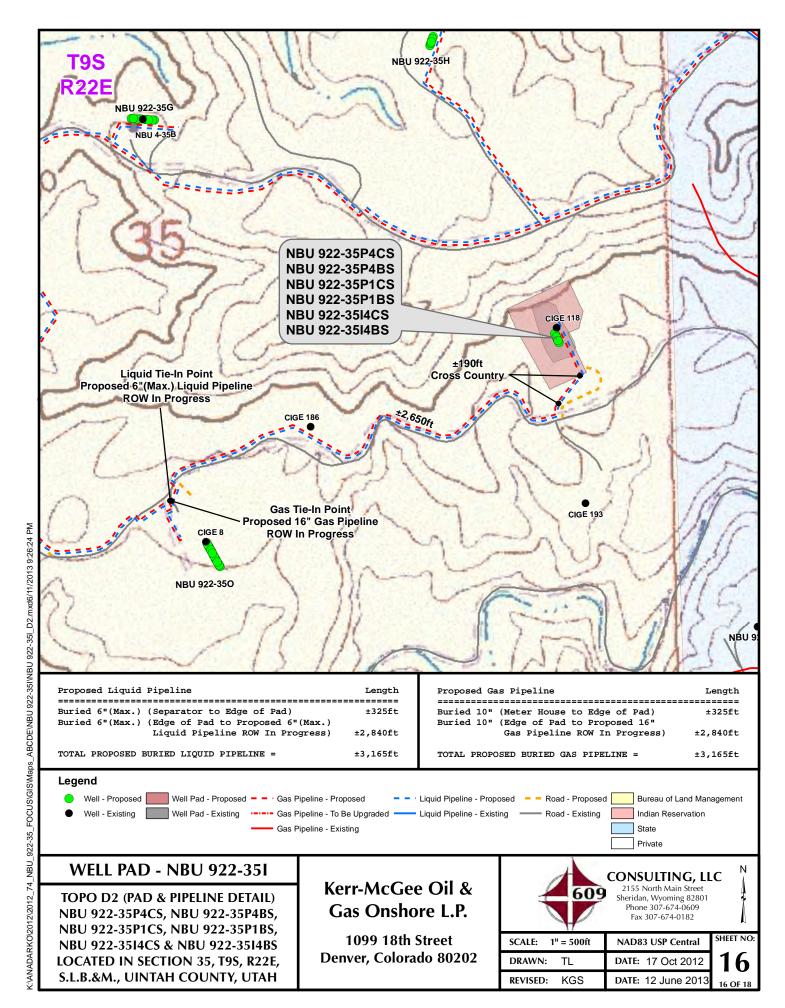
DATE PHOTOS TAKEN: 4-8-13	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 4-19-13	DRAWN BY: C.T.C.	11
Date Last Revised:		11 OF 18

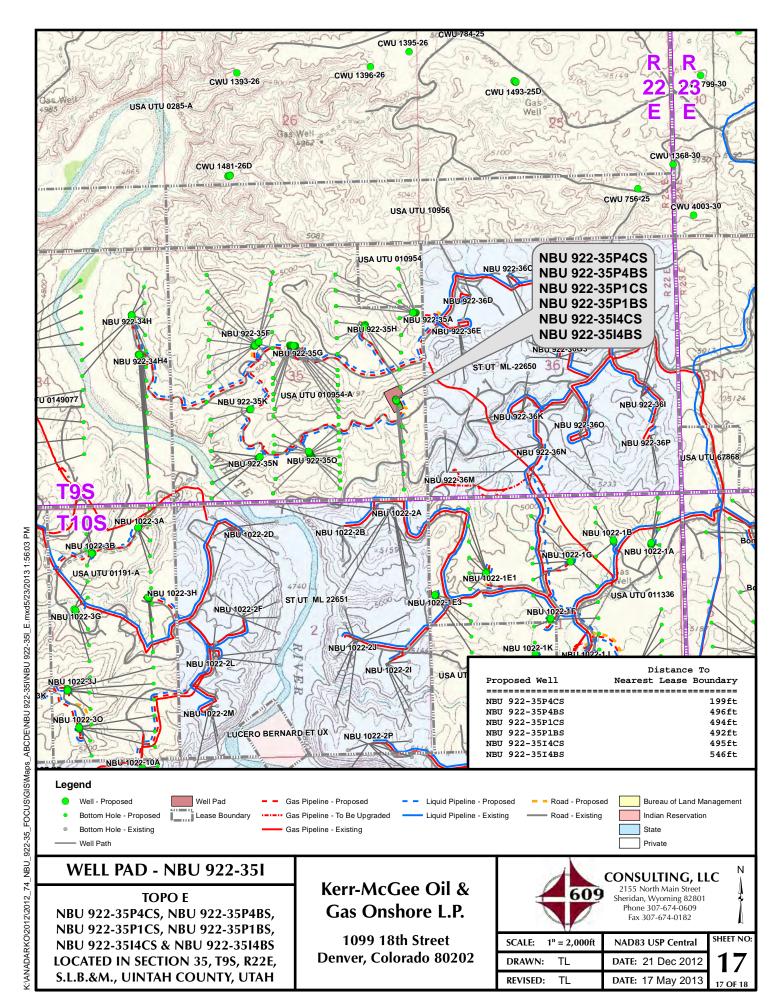












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 922-35I WELLS – NBU 922-35P4CS, NBU 922-35P4BS, NBU 922-35P1CS, NBU 922-35P1BS, NBU 922-35I4CS & NBU 922-35I4BS Section 35, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southerly, then southeasterly direction along the Seven Sisters Road approximately 2.4 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly, then northerly, then southwesterly direction along the Class D County Road approximately 1.6 miles to the proposed access road to the north. Follow road flags in a northerly, then northeasterly, then northwesterly direction approximately 440 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 46.4 miles in a southerly direction.

SHEET 18 OF 18

API Well Number: 43047 Fodject: 30 TAHO UTM (feet), NAD27, Zone 12N

Site: NBU 922-35I PAD Well: NBU 922-35P1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY



-750

750

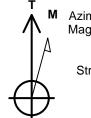
1500

Vertical Section at 173.93° (1500 ft/in)

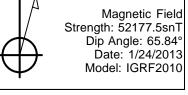
2250

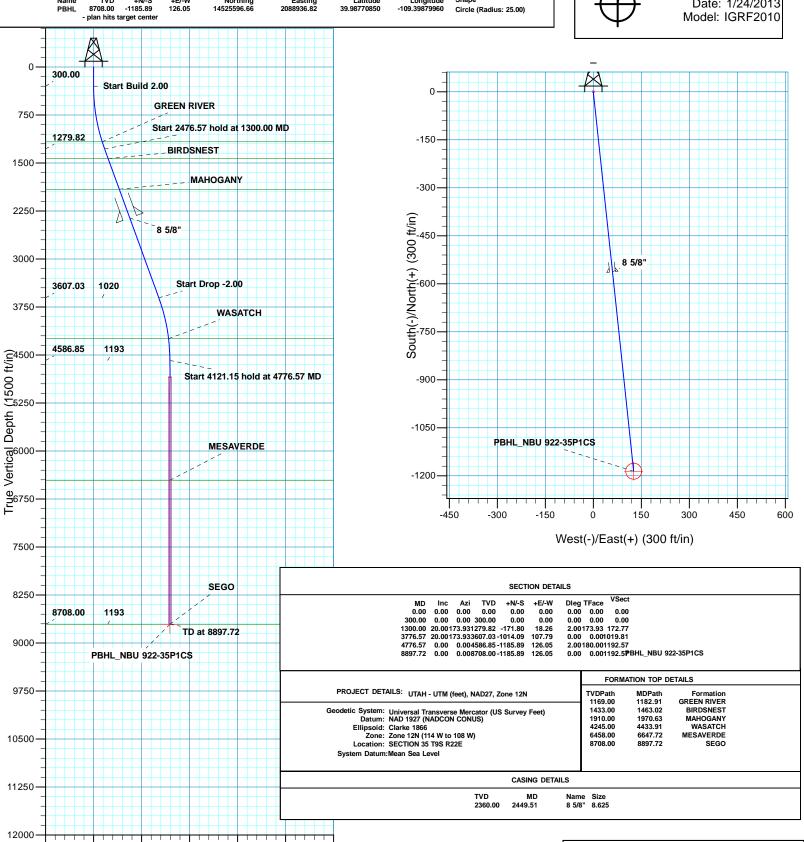
3750





Azimuths to True North Magnetic North: 10.82°





US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 922-35I PAD NBU 922-35P1CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

07 August, 2013

Planning Report

Database: Casper District

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 1:

UTAH - UTM (feet), NAD27, Zone 12N NBU 922-35I PAD

 Site:
 NBU 922-35I PAD

 Well:
 NBU 922-35P1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 922-35P1CS

GL 4998 & KB 4 @ 5002.00ft (ASSUMED) GL 4998 & KB 4 @ 5002.00ft (ASSUMED)

Truo

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

Mean Sea Level

Site NBU 922-35I PAD, SECTION 35 T9S R22E

Northing: 14,526,752.64 usft Site Position: Latitude: 39.99088850 From: Lat/Long Easting: 2,088,802.03 usft Longitude: -109.39920650 **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 1.03 13.200 in

System Datum:

Osition Uncertainty: 0.00 it Siot Radius: 13.200 iii Grid Convergence: 1.0

Well NBU 922-35P1CS, 2069 FSL 619 FEL

 Well Position
 +N/-S
 27.68 ft
 Northing:
 14,526,780.10 usft
 Latitude:
 39.99096450

 +E/-W
 -12.05 ft
 Easting:
 2,088,789.49 usft
 Longitude:
 -109.39924950

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 4,998.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) IGRF2010 1/24/2013 10.82 65.84 52,178

PLAN #1 PRELIMINARY Design **Audit Notes:** Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 173.93

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	173.93	1,279.82	-171.80	18.26	2.00	2.00	0.00	173.93	
3,776.57	20.00	173.93	3,607.03	-1,014.09	107.79	0.00	0.00	0.00	0.00	
4,776.57	0.00	0.00	4,586.85	-1,185.89	126.05	2.00	-2.00	0.00	180.00	
8,897.72	0.00	0.00	8,708.00	-1,185.89	126.05	0.00	0.00	0.00	0.00 PE	3HL_NBU 922-35F

Planning Report

Database: Casper District

Company: US ROCKIES REGION PLANNING

 Project:
 UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-35I PAD

Well: NBU 922-35P1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-35P1CS

GL 4998 & KB 4 @ 5002.00ft (ASSUMED) GL 4998 & KB 4 @ 5002.00ft (ASSUMED)

True

Minimum Curvature

Measured Depth (ft) 0.00 100.00 200.00 300.00 Start Build 2.	Inclination (°) 0.00 0.00 0.00 0.00 0.00	Azimuth (°) 0.00 0.00 0.00 0.00 0.00	Vertical Depth (ft) 0.00 100.00	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate	Build Rate	Turn Rate
0.00 100.00 200.00 300.00 Start Build 2.	(°) 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00	Depth (ft) 0.00 100.00	(ft) 0.00		Section	Rate	Rate	Rate
100.00 200.00 300.00 Start Build 2.	0.00 0.00 0.00	0.00 0.00	100.00			. ,	(°/100ft)	(°/100ft)	(°/100ft)
Start Build 2.	00	0.00	200.00 300.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
	2.00		000.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00		173.93	399.98	-1.74	0.18	1.75	2.00	2.00	0.00
500.00 600.00 700.00 800.00	4.00 6.00 8.00 10.00	173.93 173.93 173.93 173.93	499.84 599.45 698.70 797.47	-6.94 -15.61 -27.72 -43.28	0.74 1.66 2.95 4.60	6.98 15.69 27.88 43.52	2.00 2.00 2.00 2.00	2.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00
900.00	12.00	173.93	895.62	-62.25	6.62	62.60	2.00	2.00	0.00
1,000.00 1,100.00 1,182.91	14.00 16.00 17.66	173.93 173.93 173.93	993.06 1,089.64 1,169.00	-84.62 -110.36 -134.22	8.99 11.73 14.27	85.10 110.98 134.98	2.00 2.00 2.00	2.00 2.00 2.00	0.00 0.00 0.00
GREEN RIVE		173.93	1 105 07	120.42	14.82	140.21	2.00	2.00	0.00
1,200.00 1,300.00	18.00 20.00	173.93	1,185.27 1,279.82	-139.43 -171.80	18.26	172.77	2.00	2.00	0.00
Start 2476.57	hold at 1300.00	MD							
1,400.00 1,463.02	20.00 20.00	173.93 173.93	1,373.78 1,433.00	-205.81 -227.24	21.88 24.15	206.97 228.52	0.00 0.00	0.00 0.00	0.00 0.00
BIRDSNEST									
1,500.00 1,600.00 1,700.00	20.00 20.00 20.00	173.93 173.93 173.93	1,467.75 1,561.72 1,655.69	-239.82 -273.83 -307.84	25.49 29.11 32.72	241.17 275.37 309.58	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
1,800.00 1,900.00 1,970.63	20.00 20.00 20.00	173.93 173.93 173.93	1,749.66 1,843.63 1,910.00	-341.85 -375.86 -399.88	36.34 39.95 42.50	343.78 377.98 402.14	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
MAHOGANY									
2,000.00 2,100.00	20.00 20.00	173.93 173.93	1,937.60 2,031.57	-409.87 -443.88	43.57 47.18	412.18 446.38	0.00 0.00	0.00 0.00	0.00 0.00
2,200.00 2,300.00 2,400.00 2,449.51	20.00 20.00 20.00 20.00	173.93 173.93 173.93 173.93	2,125.54 2,219.51 2,313.48 2,360.00	-477.89 -511.90 -545.92 -562.75	50.80 54.41 58.03 59.81	480.59 514.79 548.99 565.92	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
8 5/8"									
2,500.00 2,600.00 2,700.00	20.00 20.00 20.00	173.93 173.93 173.93	2,407.45 2,501.42 2,595.39	-579.93 -613.94 -647.95	61.64 65.25 68.87	583.19 617.39 651.60	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2,800.00 2,900.00 3,000.00	20.00 20.00 20.00	173.93 173.93 173.93	2,689.35 2,783.32 2,877.29	-681.96 -715.97 -749.98	72.48 76.10 79.71	685.80 720.00 754.20	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3,100.00 3,200.00	20.00	173.93 173.93	2,971.26 3,065.23	-783.99 -818.00	83.33 86.94	788.40 822.61	0.00	0.00	0.00
3,300.00 3,400.00 3,500.00	20.00 20.00 20.00	173.93 173.93 173.93	3,159.20 3,253.17 3,347.14	-852.01 -886.02 -920.03	90.56 94.17 97.79	856.81 891.01 925.21	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3,600.00 3,700.00	20.00 20.00	173.93 173.93	3,441.11 3,535.08	-954.04 -988.05	101.40 105.02	959.41 993.62	0.00 0.00	0.00 0.00	0.00 0.00
3,776.57 Start Drop -2.	20.00	173.93	3,607.03	-1,014.09	107.79	1,019.81	0.00	0.00	0.00
3,800.00 3,900.00	19.53 17.53	173.93 173.93	3,629.08 3,723.89	-1,021.97 -1,053.57	108.62 111.98	1,027.73 1,059.51	2.00 2.00	-2.00 -2.00	0.00 0.00
4,000.00	15.53	173.93	3,819.75	-1,081.87	114.99	1,087.96	2.00	-2.00	0.00

Planning Report

Database: Casper District

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 922-351 PAD
Well: NBU 922-35P1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-35P1CS

GL 4998 & KB 4 @ 5002.00ft (ASSUMED) GL 4998 & KB 4 @ 5002.00ft (ASSUMED)

True

Minimum Curvature

Design:	PLAN #1 PRE	LIMINARY							
Planned Survey									
r laillieu Sui vey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,100.00	13.53	173.93	3,916.55	-1,106.82	117.64	1,113.05	2.00	-2.00	0.00
4,200.00	11.53	173.93	4,014.16	-1,128.39	119.94	1,134.75	2.00	-2.00	0.00
4,300.00	9.53	173.93	4,112.47	-1,146.57	121.87	1,153.02	2.00	-2.00	0.00
4,400.00	7.53	173.93	4,211.36	-1,161.32	123.44	1,167.86	2.00	-2.00	0.00
			,						
4,433.91	6.85	173.93	4,245.00	-1,165.54	123.88	1,172.10	2.00	-2.00	0.00
WASATCH									
4,500.00	5.53	173.93	4,310.71	-1,172.63	124.64	1,179.23	2.00	-2.00	0.00
4,600.00	3.53	173.93	4,410.39	-1,180.48	125.47	1,187.13	2.00	-2.00	0.00
4,700.00	1.53	173.93	4,510.28	-1,184.88	125.94	1,191.55	2.00	-2.00	0.00
4,776.57	0.00	0.00	4,586.85	-1,185.89	126.05	1,192.57	2.00	-2.00	0.00
Start 4121.1	5 hold at 4776.57	7 MD							
4,800.00	0.00	0.00	4,610.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
4,900.00	0.00	0.00	4,710.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,000.00	0.00	0.00	4,810.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,100.00	0.00	0.00	4,910.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,200.00	0.00	0.00	5,010.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,300.00	0.00	0.00	5,110.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,400.00	0.00	0.00	5,210.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,500.00	0.00	0.00	5,310.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,600.00	0.00	0.00	5,410.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,700.00	0.00	0.00	5,510.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,800.00	0.00	0.00	5,610.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
5,900.00	0.00	0.00	5,710.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,000.00	0.00	0.00	5,810.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,100.00	0.00	0.00	5,910.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,200.00	0.00	0.00	6,010.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,300.00	0.00	0.00	6,110.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,400.00	0.00	0.00	6,210.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,500.00	0.00	0.00	6,310.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,600.00	0.00	0.00	6,410.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,647.72	0.00	0.00	6,458.00	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
MESAVERD	E		,	•		,			
		0.00	0.540.00	4.405.00	100.05	4 400 57	0.00	0.00	0.00
6,700.00	0.00	0.00	6,510.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,800.00	0.00 0.00	0.00	6,610.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
6,900.00 7,000.00	0.00	0.00 0.00	6,710.28 6,810.28	-1,185.89 -1,185.89	126.05 126.05	1,192.57 1,192.57	0.00 0.00	0.00 0.00	0.00 0.00
7,100.00	0.00	0.00	6,910.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
						*			
7,200.00	0.00	0.00	7,010.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
7,300.00	0.00	0.00	7,110.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
7,400.00	0.00	0.00	7,210.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
7,500.00	0.00	0.00	7,310.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
7,600.00	0.00	0.00	7,410.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
7,700.00	0.00	0.00	7,510.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
7,800.00	0.00	0.00	7,610.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
7,900.00	0.00	0.00	7,710.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,000.00	0.00	0.00	7,810.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,100.00	0.00	0.00	7,910.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,200.00	0.00	0.00	8,010.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,300.00	0.00	0.00	8,110.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,400.00	0.00	0.00	8,210.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,500.00	0.00	0.00	8,310.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,600.00	0.00	0.00	8,410.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00
8,700.00	0.00	0.00	8,510.28	-1,185.89	126.05	1,192.57	0.00	0.00	0.00

Planning Report

Database: Casper District

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-35I PAD

 Well:
 NBU 922-35P1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-35P1CS

GL 4998 & KB 4 @ 5002.00ft (ASSUMED) GL 4998 & KB 4 @ 5002.00ft (ASSUMED)

True

Minimum Curvature

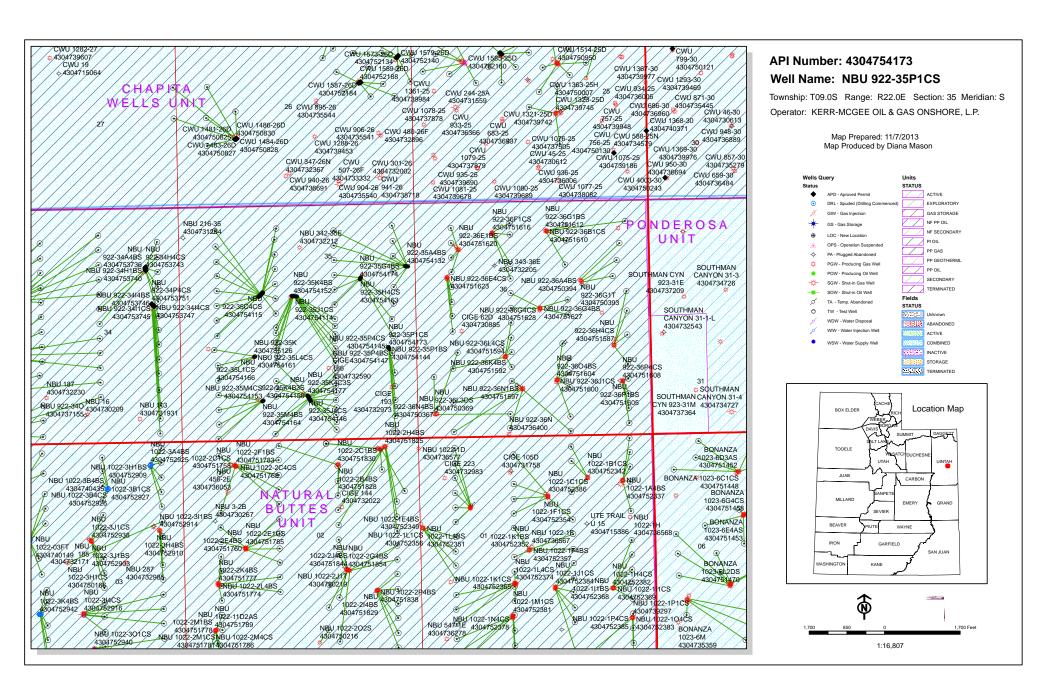
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00 8,897.72 TD at 8897.7 3	0.00 0.00 2 - SEGO - PBH I	0.00 0.00 _ NBU 922-35P	8,610.28 8,708.00 1CS	-1,185.89 -1,185.89	126.05 126.05	1,192.57 1,192.57	0.00 0.00	0.00 0.00	0.00 0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-35P1Cl - plan hits target cen - Circle (radius 25.00	ter	0.00	8,708.00	-1,185.89	126.05	14,525,596.67	2,088,936.81	39.98770850	-109.39879960

Casing Points					
	Measured	Vertical		Casing	Hole
	Depth	Depth		Diameter	Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,449.51	2,360.00 8 5/8"		8.625	11.000

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,182.91	1,169.00	GREEN RIVER				
	1,463.02	1,433.00	BIRDSNEST				
	1,970.63	1,910.00	MAHOGANY				
	4,433.91	4,245.00	WASATCH				
	6,647.72	6,458.00	MESAVERDE				
	8,897.72	8,708.00	SEGO				

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,300.00	1,279.82	-171.80	18.26	Start 2476.57 hold at 1300.00 MD
3,776.57	3,607.03	-1,014.09	107.79	Start Drop -2.00
4,776.57	4,586.85	-1,185.89	126.05	Start 4121.15 hold at 4776.57 MD
8,897.72	8,708.00	-1,185.89	126.05	TD at 8897.72



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office 440 West 200 South, Suite 500 Salt Lake City, UT 84101

IN REPLY REFER TO: 3160 (UT-922)

November 13, 2013

Memorandum

To: Assistant Field Office Manager Minerals,

Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2013 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 922-35A PAD

43-047-54073	NBU					0164 0502	
43-047-54119	NBU	922-35H1CS		 		0154 0482	
43-047-54120	NBU					0194 0498	
43-047-54125	NBU					0224 1820	
43-047-54126	NBU			 		0214 1819	
43-047-54127	NBU	922-35B1CS		 		0204 1819	
43-047-54130	NBU	922-35A4CS		 		0184 0491	
43-047-54132		922-35A4BS				0174 0489	
NBU 922-35F PAD 43-047-54109		922-35E1CS		 		1789 0828	
43-047-54110	NBU					1796 0842	
43-047-54111	NBU	922-35D4CS				1804 0836	

RECEIVED: November 13, 2013

API #	Ţ	WELL NAME				LO	CATIO	N			
(Proposed PZ	WASA	ATCH-MESA VEI	RDE)								
43-047-54112	NBU					T09S T09S					
43-047-54113	NBU					T09S T09S					
43-047-54115	NBU	922-35C4CS	BHL			T09S T09S					
43-047-54116	NBU					T09S T09S					
43-047-54117	NBU	922-35C1CS				T09S T09S					
43-047-54118	NBU					T09S T09S					
43-047-54121	NBU	922-35F1CS				T09S T09S					
43-047-54122	NBU					T09S T09S					
43-047-54124	NBU					T09S T09S					
43-047-54129	NBU					T09S T09S					
43-047-54133	NBU					T09S T09S					
43-047-54134 NBU 922-35G PAI						T09S T09S					
43-047-54114						T09S T09S					
43-047-54123	NBU	922-35J1C2S	BHL	Sec Sec	35 35	T09S T09S	R22E R22E	2038 2252	FNL FSL	2603 1827	FWL FEL
43-047-54128	NBU					T09S T09S					
43-047-54131	NBU					T09S T09S					
43-047-54135	NBU					T09S T09S					
43-047-54136	NBU					T09S T09S					
43-047-54137	NBU					T09S T09S					
43-047-54138	NBU					T09S T09S					
43-047-54139	NBU					T09S T09S					

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API #	7	WELL NAME				LO	CATIO	N			
(Proposed PZ											
43-047-54140	NBU						R22E R22E				
43-047-54141	NBU	922-35K1CS	BHL	Sec Sec	35 35	T09S T09S	R22E R22E	2031 2245	FNL FSL	2533 2150	FWL FWL
43-047-54152							R22E R22E				
NBU 922-350 PAI 43-047-54143	NBU	922-35N1BS	BHL	Sec Sec	35 35	T09S T09S	R22E R22E	1018 1198	FSL FSL	2456 2149	FEL FWL
43-047-54146	NBU						R22E R22E				
43-047-54150	NBU						R22E R22E				
43-047-54154	NBU						R22E R22E				
43-047-54155	NBU						R22E R22E				
43-047-54156	NBU						R22E R22E				
43-047-54157	NBU						R22E R22E				
43-047-54159	NBU						R22E R22E				
43-047-54162	NBU	922-3501BS	BHL	Sec Sec	35 35	T09S T09S	R22E R22E	0956 1080	FSL FSL	2424 1820	FEL FEL
43-047-54167	NBU						R22E R22E				
43-047-54170	NBU	922-3501CS					R22E R22E				
43-047-54172	NBU						R22E R22E				
43-047-54175	NBU						R22E R22E				
43-047-54176	NBU						R22E R22E				
43-047-54177	NBU						R22E R22E				
NBU 922-35I PAD						-0.5	- 0 -	00.75		0.61.5	
43-047-54144			BHL	Sec	35	T09S	R22E	1199	FSL	0492	FEL
43-047-54145	NBU						R22E R22E				

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API #	WELL NAME				LO	CATIO	N			
(Proposed PZ WAS	SATCH-MESA VE	RDE)								
43-047-54147 NBU	922-35P4BS	BHL	Sec Sec	35 35	T09S T09S	R22E R22E	2078 0520	FSL FSL	0623 0496	FEL FEL
43-047-54148 NBU	922-35I4BS					R22E R22E				
43-047-54171 NBC	922-35I4CS					R22E R22E				
43-047-54173 NBU	922-35P1CS					R22E R22E				
NBU 922-35H PAD 43-047-54149 NBU	922-35I1BS	BHL	Sec Sec	35 35	T09S T09S	R22E R22E	1681 2329	FNL FSL	1236 0520	FEL FEL
43-047-54163 NBU	922-35H4CS					R22E R22E				
43-047-54165 NBU	922-35G1BS					R22E R22E				
43-047-54168 NBU	922-35G1CS					R22E R22E				
43-047-54169 NBU	J 922-35H4BS					R22E R22E				
43-047-54174 NBU	922-35G4BS					R22E R22E				
NBU 922-35N 43-047-54151 NBU	922-35M1CS					R22E R22E				
43-047-54153 NBU	922-35M4CS					R22E R22E				
43-047-54160 NBU	922-35M1BS					R22E R22E				
43-047-54164 NBU						R22E R22E		_		
NBU 922-35K PAD 43-047-54158 NBU	J 922-35L4BS					R22E R22E		_		
43-047-54161 NBU	922-35L4CS					R22E R22E				
43-047-54166 NBU	922-35L1CS					R22E R22E				

This office has no objection to permitting the wells at this time.

Michael Coulthard

Digitally signed by Michael Coulthard

Ont. cn-michael Coulthard, o-Bureau of Land Management,
out-Division of Minerals, email-emcoulthae/bilm.gov, c=US
Date: 2013.11.13 08:51:12-07:00'

bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:11-13-13

NBU 922-351 Pad

Surface Use Plan of Operations 1 of 6

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-35I PAD

NBU 922-3514BS Surface: 2042 FSL / 607 FEL

ace: 2042 FSL / 607 FEL NESE BHL: 1945 FSL / 546 FEL NESE

NBU 922-3514CS

 Surface:
 2051 FSL / 611 FEL
 NESE

 BHL:
 1510 FSL / 495 FEL
 NESE

NBU 922-35P1BS

Surface: 2060 FSL / 615 FEL NESE BHL: 1199 FSL / 492 FEL SESE

NBU 922-35P1CS

Surface: 2069 FSL / 619 FEL NESE BHL: 883 FSL / 494 FEL SESE

NBU 922-35P4BS

Surface: 2078 FSL / 623 FEL NESE BHL: 520 FSL / 496 FEL SESE

NBU 922-35P4CS

Surface: 2088 FSL / 627 FEL NESE BHL: 199 FSL / 498 FEL SESE

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

The first on-site meeting was held on November 6, 2012. Present were:

- · Aaron Roe, Tyler Cox and Dave Gordon BLM;
- Mitch Batty Timberline Engineering & Land Surveying, Inc.;
- · Randy Townley, Rod Anderson, Charles Chase, Chantill Recker, Lindsey Frazier and Cara Mahler Kerr-McGee;
- · Jacob Dunham 609 Consulting Inc.;
- Alan Rabinoff- ICF International

The second on-site meeting was held on March 14, 2013. Present were:

- · Aaron Roe, Tyler Cox and Dave Gordon BLM;
- · Mitch Batty Timberline Engineering & Land Surveying, Inc.;
- Cara Mahler, Tom Lee, Sandi Mitchell, Doreen Green, Doyle Holmes, Chantill Recker, Howdy Brown and Hal Blanchard
 Kerr-McGee;

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NBU 922-351 Pad

A. Existing Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

B. New or Reconstructed Access Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The following segments are "on-lease"

 $\pm 440'$ (0.1 miles) – Section 35 T9S R22E (NE/4 SE/4) – On-lease UTU-010954-A, from the edge of pad traveling southwest to the existing road intersection in NE/4 SE/4. Please refer to Topo B.

C. Location of Existing Wells:

Please refer to Topo C for exiting wells.

D. Location of Existing and/or Proposed Facilities:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the CIGE 118, which is a plugged and abandoned gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on August 28, 2013. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The total gas gathering pipeline distance from the meter to the tie in point is $\pm 11,675$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±325' (0.06 miles) Section 35 T9S R22E (NE/4 SE/4) On-lease UTU-010954-A, BLM surface, New 10" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±2,840' (0.5 miles) Section 35 T9S R22E (NE/4 SE/4) On-lease UTU-010954-A, BLM surface, New 10" buried gas gathering pipeline from the edge of the pad to tie-in to the proposed buried 16" gas gathering pipeline ROW in progress at the NBU 922-35O Pad intersection. A 190' segment of this pipeline travels cross country (Exhibit A, Line 2) Please refer to Exhibit A, Lines 2 and 1.

The following segments require a ROW. Anadarko Uintah Midstream (AUM) will apply for an SF-299/POD under separate cover. Listed below is the gas gathering pipeline distances:

- ±7,980' (1.5 miles) Section 35 T9S R22E (NE/4 SE/4) On-lease UTU-010954-A, BLM surface, New 16" buried gas gathering pipeline from the NBU 922-35O Pad pipeline intersection traveling northwest and then turning back east to the eastern lease boundary. Please refer to Exhibit A- Green highlighted.
 - ±530' (0.1 miles) Section 36 T9S R22E (SW/4 NW/4) On-lease ST UT ML-22650, State surface, New 16" buried gas gathering pipeline from the western lease boundary to tie into the existing buried 16" gas gathering pipeline at the NBU 922-36E Pad. Please refer to Exhibit A- Green highlighted.

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 11,675$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±325' (0.06 miles) Section 35 T9S R22E (NE/4 SE/4) On-lease UTU-010954-A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±6,240' (1.2 miles) Section 35 T9S R22E (NE/4 SE/4) On-lease UTU-010954-A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad traveling west and then north to the NBU 922-34H4 intersection. Three segments of this pipeline travel cross country, 190' (Exhibit B, Line 16), 140' (Exhibit B, Line 12) and 1,030' (Exhibit B, Line 9). This pipeline will be used concurrently with the NBU 922-35O, NBU 922-35N, NBU 922-35K pads. Please refer to Exhibit B, Lines 9-16.
- ±4,580' (1.5 miles) Section 35 T9S R22E (NE/4 SE/4) On-lease UTU-010954-A, BLM surface, New 6" buried liquid gathering pipeline from the NBU 922-34H4 Pad pipeline intersection traveling east to the eastern lease boundary. Two segments of this pipeline travel cross country, 215' (Exhibit B, Line 8) and 540' (Exhibit B, Line 5) This pipeline will be used concurrently with the NBU 922-35O, NBU 922-35N, NBU 922-35K, NBU 922-34H, NBU 922-34H4, NBU 922-35F, NBU 922-35G and NBU 922-35H pads. Please refer to Exhibit B, Lines 3-8.

Kerr-McGee will apply for the appropriate State easements under separate cover. Listed below is the liquid gathering pipeline distances:

±530' (0.1 miles) – Section 36 T9S R22E (SW/4 NW/4) – On-lease ST UT ML-22650, State surface, New 6" buried liquid gathering pipeline from the western lease boundary to tie into the existing buried 6" liquid gathering pipeline at the NBU 922-36E Pad. Please refer to Exhibit B, Lines 1 and 2.

Pipeline Gathering Construction

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The Anadarko Completions Transportation System (ACTS) information:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

E. Location and Types of Water Supply:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Water will be hauled to location over the roads marked on Maps A and B.

F. Construction Materials:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

G. Methods for Handling Waste:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Materials Management

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

J. Plans for Surface Reclamation:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Interim Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

RECEIVED: November 15, 2013

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NBU 922-351 Pad

Measures Common to Interim and Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Weed Control

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Monitoring

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

L. Other Information:

Cultural and Paleontological Resources

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Resource Reports:

A Class I literature survey was completed on April 25, 2013 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 13-077.

A paleontological reconnaissance survey was completed on October 27, 2012 by SWCA Environmental Consultants. For additional details please refer to report UT13-14314-88.

Biological field survey was completed on September 20, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-860.

Proposed Action Annual Emissions Tables:

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-35I Pad

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T.Becker

August 28, 2013

Date



October 31, 2012

Kerr-McGee Oil & Gas Onshore L.P., wholly owned subsidiary of Anadarko Petroleum Corporation, Standard Operating Practice Agreement for the Greater Natural Buttes Field

Drilling Program

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations, Onshore Oil and Gas Orders, and the approved plan of operation. As Operator, Kerr-McGee, is fully responsible for actions of subcontractors. A copy of these Standard Operating Practices will be furnished to the field representatives to insure compliance.

BLM Notification Requirements:

Location Constructions: At least 48 hours prior to construction of location and access roads including notification, if applicable, to other surface management agencies, such as Ute Tribe Energy and Mineral Department, State of Utah, or private surface owner(s).

Location Completion: Prior to moving on the drilling rig

Spud Notice: At least 24 hours prior to spudding the well.

Casing String and Cementing: At least 24 hours prior to running casing and cementing all casing.

BOP & Related Equipment Tests: At least 24 hours prior to initiating pressure tests.

First Production Notice: Within 5 days after a new well begins production; or, within 5 days of when production resumes after a well has been off production for more than 90 days.

Details of the on-site inspection, including date, time, weather conditions, and individuals present, will be submitted with the site-specific Application for Permit to Drill (APD).

1. Estimated Tops of Important Geologic Markers:

Formation and depths will be submitted with site-specific APDs.

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation and depths will be submitted with site-specific APDs.

3. Pressure Control Equipment:

Pressure Control Equipment Schematic is attached as appendix F. Any variance will be included in the site-specific APDs.

4. Proposed Casing & Cementing Program:

Proposed casing and cementing will be submitted with site-specific APDs.

5. Drilling Fluids Program:

Proposed drilling fluids will be submitted with site-specific APDs.

6. Evaluation Program:

Evaluation program will be submitted with site-specific APDs.

7. Abnormal Conditions:

Any abnormal condition will be submitted with site specific APDs.

8. Anticipated Starting Dates:

Drilling is planned to commence within the administrative period of an approved application.

9. Variances:

Kerr-McGee respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2:

Variance for air drilling

An air rig is only used by Kerr-McGee to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig and is used to drill and construct the majority of the wellbore.

KMG typically utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while

creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill an 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with an 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump, which is located near the reserve pit, will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement)

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG locations.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part B1, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). These wells are not exploratory well and are being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

10. Other Information:

Drilling Program will be submitted with site-specific APDs.

SURFACE USE PROGRAM

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing may be performed where excessive rutting or erosion may occur. Dust control may be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines may occupy common disturbance corridors where possible. Where available, roadways may be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor may overlap each other to the maximum extent possible, while maintaining safe and sound

construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Within individual APDs, please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007). The BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to all applicable US Army Corps of Engineers requirements in cooperation with the Utah Division of Water Rights.

New well pads or pad expansions may require construction of a new access road and/or decommissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met Kerr-McGee may use unimproved and/or two-track roads for lease operations and to lessen total disturbance. Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities may be constructed to divert surface water runoff. Drainage features, including culverts, may be constructed or installed prior to commencing other operations, including drilling for facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s). Drainage features will meet the standards of the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007).

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activities will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement and construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

For individual APDs, refer to Topo B.

C. Location of Existing Wells:

For individual APDs, refer to Topo C

D. Location of Existing and/or Proposed Facilities:

The following will apply if the well is productive: Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee). Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad.

A berm may be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed to hold the capacity of the largest tank and have sufficient freeboard to accommodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project- specific APD, ROW or NOS submission.

Gas Gathering

The gas gathering pipeline is made of steel line pipe, surface is bare pipe and buried is of coated with fusion bonded epoxy coating (or equivalent). The individual segments will be denoted in site-specific APDs.

Liquid Gathering

The individual segments will be denoted in site-specific APDs.

Pipeline Gathering Construction

Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. The road and/or well pad may be utilized for construction activities and staging when the pipeline is adjacent to the road or well pad. The area of disturbance during construction from the edge of road or well pad will typically be 30 feet in width. Where pipelines run cross country, the width of disturbance will typically be 45 feet for buried lines and 30 feet for surface lines. In addition, Kerr-McGee requests for a permanent 30 feet disturbance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent disturbance width is for maintenance and repairs. Cross country permanent disturbance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. If installation cannot occur on the exact location, pipe may be constructed parallel and adjacent to a road and lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment. Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

When installing a buried pipeline, typically topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radio-graphically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or its successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

For individual APDs, refer to Exhibit C for the proposed placement of the ACTS temporary lines.

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is discussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit may be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system. Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of completion fluids by utilizing existing reserve pits, or newly constructed completion pits, as well as temporary, surface-laid aluminum liquids transfer lines between pad locations. The pit will be refurbished when a traditional drill pit is used including mix and pile up drill cuttings with dry dirt, bury the original liner in the pit and walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurbish will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit.

ACTS will require temporarily laying multiple 6 inch aluminum water transfer lines on the surface between either existing or refurbished reserve pits. The temporary aluminum transfer lines will be utilized to transport completion fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon conclusion of the completion operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee will keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other completion jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources: JD Field Services:

Green River: 1087' FSL & 1020' FEL, Sec. 15 – T2N – R22E

RN Industries:

High Pressure: 705' FNL & 675' FWL, Sec. 1 – T6S – R22E

1057' FNL & 390' FWL, Sec. 1 – T6S – R22E 1239' FNL & 52' FEL, Sec. 6 – T6S – R23E

White River: 501' FNL & 1676' FEL, Sec. 9 – T8S – R20E

471' FNL & 1676' FEL, Sec. 9 – T8S – R20E 900' FNL & 550' FEL, Sec. 35 – T9S – R22E 200' FNL & 950' FEL, Sec. 2 – T10S – R22E 275' FSL & 2275' FEL, Sec. 2 – T10S – R22E 122' FSL & 1350' FEL, Sec. 11 – T10S – R22E 1670' FSL & 500' FEL, Sec. 12 – T10S – R22E 959' FNL & 705' FEL, Sec. 13 – T10S – R22E

600' FSL & 900' FEL, Sec. 13 – T10S – R22E

Water Plant: 481' FNL & 2176' FEL, Sec. 9 – T8S – R20E

471' FNL & 2176' FEL, Sec. 9 – T8S – R20E

Frog Pond: 4820' FNL & 1200' FWL, Sec. 33 – T8S – R20E

4850' FNL & 700' FWL, Sec. 33 – T8S – R20E

Blue Tanks: 200' FNL & 405' FEL, Sec. 32 – T4S – R3E

Water will be hauled to location over the roads marked in the individual APD's Maps A and B.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from Federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee maintains a Spill Control and Countermeasure Plan for each applicable location, which includes notification requirements, to the BLM and other appropriate agencies, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a

release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A.

Drill cuttings and/or drilling fluids may be contained in a reserve/completion pit whether a closed loop system is or isn't utilized and cuttings may be buried in the pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

If utilizing a closed loop system, drill cuttings and/or drilling fluids may be stored in above ground containers while on the location. All used drilling fluids may be hauled to Anadarko Petroleum Corporation's Mud Plant where it may be recycled for use at future well locations, hauled to a permitted disposal facility, or solidified for incorporation into the pad during interim reclamation practices. Drill cuttings from a closed loop system may be either hauled to an approved Utah Department of Oil, Gas and Mining Commercial Landfarm Disposal Facility or incorporated into the pad location during interim reclamation.

Pits will be constructed to eliminate the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or completion pit will be lined with a synthetic material 30 mil or thicker liner. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced or netted to prevent wildlife or livestock entry.

Maximum distance between fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or

substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used. Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Any produced water separated from recoverable condensate during well operations will be contained in a water tank and will then be transported by pipeline and/or truck to one of the preapproved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

If additional ancillary facilities are planned they will be depicted on site specific APDs.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig,

dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable.

Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of disturbance will not exceed the maximum disturbance outlined in the attached exhibits of the individual APDs.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or reconfiguration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, incorporation of cuttings, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. Stockpiled drill cuttings may also be incorporated into the spoils, recontoured, and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface

will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as close as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site and prior to replacing topsoil, final grading and site preparation will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and the surface soil material will be uniformly pitted with longitudinal depressions perpendicular to the natural flow of water where practical. Following site preparation, topsoil will be spread on the location and prepared for seeding.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 to 24 inches where practical, recontoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Soil tillage will be conducted using a disk in areas needing additional seedbed preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen

compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur in the fall and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box." Additionally an imprinter seeder may be used. An imprinter seeder creates divots to roughen the surface and collect moisture to aid in seed germination. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed" and noxious weed free seed.

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix:	Pure Live Seed lbs/acre
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass (Arriba)	1
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee Plant	0.5
Total	9.75

Natural Buttes Area	Pure Live Seed lbs/acre
Mix Option 1:	Fure Live Seed ibs/acre
Indian Ricegrass (Nezpar)	3
Sandberg bluegrass	0.75
Bottlebrush squirreltail	1
Great Basin Wildrye	0.5
Crested wheatgrass (Ephraim)	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing saltbush	0.75
Forage Kochia	0.25
Total	9.5

<u>Natural Buttes</u>	
Area Mix Option 2:	Pure Live Seed lbs/acre
Great Basin Wildrye	2.5
Indian Ricegrass (Nezpar)	0.5

Crested Wheatgrass	2
Siberian Wheatgrass	2
Bottlebrush Squirreltail	1
Munro Globemallow	0.5
Palmer Penstemon	0.1
Rocky Mtn beeplant	0.5
Western yarrow	0.1
Shadscale	0.5
Forage Kochia	0.5
Total	10.2

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Proposal (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until

the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines).

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geodatabase no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

Depicted on site specific APDs.

L. Other Information:

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM or appropriate SMA.

Resource Reports

Appropriate archaeological and paleontological reconnaissance surveys and biological field surveys will be completed and provide to the BLM for individual APDs.

Proposed Action Annual Emissions Tables:

Appendix A through E contains the emission table per pad based on well count.

M. Lessee's or Operators' Representative & Certification:

Depicted on site specific APDs.

Appendix A:

Proposed Action Annual Emissions Tables: 4 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year) ¹			
Pollutant	Development	Production	Total
NOx	3.8	1.29	5.09
CO	2.2	1.08	3.28
VOC	0.1	15.00	15.10
SO_2	0.005	0.01	0.02
PM_{10}	1.7	0.11	1.81
PM _{2.5}	0.4	0.05	0.45
Benzene	2.2E-03	0.12	0.12
Toluene	1.6E-03	0.20	0.20
Ethylbenzene	3.4E-04	0.01	0.01
Xylene	1.1E-03	0.09	0.09
n-Hexane	1.7E-04	0.51	0.51
Formaldehyde	1.3E-02	1.30E-04	1.31E-02

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison				
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory ^a (ton/yr)	Percentage of Proposed Action to WRAP Phase III	
NOx	5.09	16,547	0.031%	
VOC	15.10	127,495	0.012%	

^a http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

Appendix B:

Proposed Action Annual Emissions Tables: 5 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year) ¹			
Pollutant	Development	Production	Total
NOx	3.8	1.61	5.41
СО	2.2	1.35	3.55
VOC	0.1	18.75	18.85
SO_2	0.005	0.01	0.02
PM_{10}	1.7	0.14	1.84
PM _{2.5}	0.4	0.06	0.46
Benzene	2.2E-03	0.15	0.15
Toluene	1.6E-03	0.24	0.25
Ethylbenzene	3.4E-04	0.01	0.01
Xylene	1.1E-03	0.11	0.11
n-Hexane	1.7E-04	0.64	0.64
Formaldehyde	1.3E-02	1.62E-04	1.32E-02

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison				
		WRAP Phase	D	
		III 2012	Percentage	
		Uintah Basin	of Proposed	
		Emission	Action to	
	Proposed Action Production	Inventory ^a	WRAP	
Species	Emissions (ton/yr)	(ton/yr)	Phase III	
NOx	5.41	16,547	0.033%	
VOC	18.85	127,495	0.015%	

 $[^]a\ http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html$

Uintah Basin Data

Appendix C:
Proposed Action Annual Emissions Tables: 6 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year) ¹			
Pollutant	Development	Production	Total
NOx	3.8	1.94	5.74
СО	2.2	1.62	3.82
VOC	0.1	22.50	22.60
SO_2	0.005	0.02	0.02
PM_{10}	1.7	0.17	1.87
PM _{2.5}	0.4	0.07	0.47
Benzene	2.2E-03	0.18	0.18
Toluene	1.6E-03	0.29	0.29
Ethylbenzene	3.4E-04	0.02	0.02
Xylene	1.1E-03	0.14	0.14
n-Hexane	1.7E-04	0.77	0.77
Formaldehyde	1.3E-02	1.94E-04	1.32E-02

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison			
		WRAP Phase	
		III 2012	Percentage
		Uintah Basin	of Proposed
		Emission	Action to
	Proposed Action Production	Inventory ^a	WRAP
Species	Emissions (ton/yr)	(ton/yr)	Phase III
NOx	5.74	16,547	0.035%
VOC	22.60	127,495	0.018%

^a http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin

Appendix D:

Proposed Action Annual Emissions Tables: 7 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year) ¹			
Pollutant	Development	Production	Total
NOx	3.8	2.26	6.06
CO	2.2	1.89	4.09
VOC	0.1	26.25	26.35
SO_2	0.005	0.02	0.02
PM_{10}	1.7	0.19	1.89
PM _{2.5}	0.4	0.08	0.48
Benzene	2.2E-03	0.21	0.21
Toluene	1.6E-03	0.34	0.34
Ethylbenzene	3.4E-04	0.02	0.02
Xylene	1.1E-03	0.16	0.16
n-Hexane	1.7E-04	0.89	0.89
Formaldehyde	1.3E-02	2.27E-04	1.32E-02

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison				
		WRAP Phase		
		III 2012	Percentage	
		Uintah Basin	of Proposed	
		Emission	Action to	
	Proposed Action Production	Inventory ^a	WRAP	
Species	Emissions (ton/yr)	(ton/yr)	Phase III	
NOx	6.06	16,547	0.037%	
VOC	26.35	127,495	0.021%	

^a http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

Appendix E:

Proposed Action Annual Emissions Tables: 8 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year) ¹					
Pollutant	Development	Production	Total		
NOx	3.8	2.58	6.38		
СО	2.2	2.16	4.36		
VOC	0.1	30.00	30.10		
SO_2	0.005	0.02	0.03		
PM_{10}	1.7	0.22	1.92		
PM _{2.5}	0.4	0.09	0.49		
Benzene	2.2E-03	0.24	0.24		
Toluene	1.6E-03	0.39	0.39		
Ethylbenzene	3.4E-04	0.02	0.02		
Xylene	1.1E-03	0.18	0.18		
n-Hexane	1.7E-04	1.02	1.02		
Formaldehyde	1.3E-02	2.59E-04	1.33E-02		

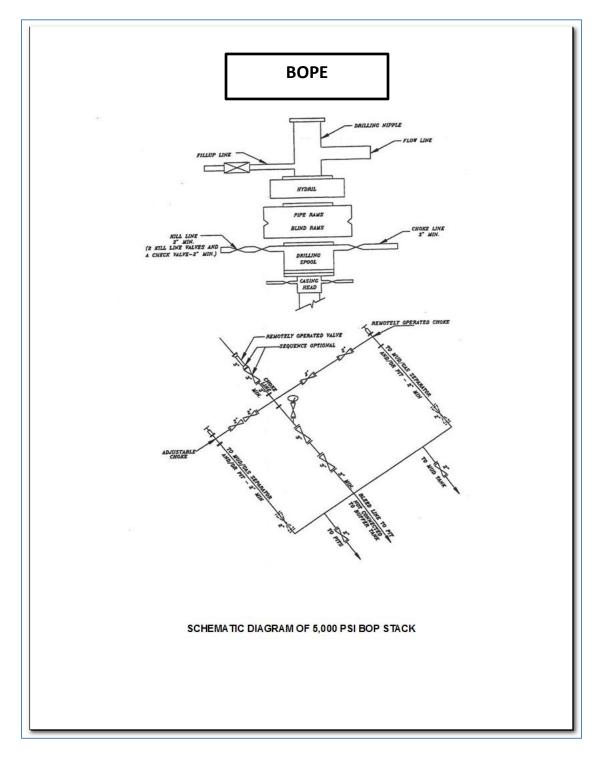
¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Actio	on versus 2012 WRAP Phase III Emi	ssions Inventory	Comparison
		WRAP Phase	_
		III 2012	Percentage
		Uintah Basin	of Proposed
		Emission	Action to
	Proposed Action Production	Inventory ^a	WRAP
Species	Emissions (ton/yr)	(ton/yr)	Phase III
NOx	6.38	16,547	0.039%
VOC	30.10	127,495	0.024%

 $[^]a\ http://www.wrapair.org/forums/ogwg/Phase III_Inventory.html$

Uintah Basin Data

Appendix F: Pressure Control Equipment Schematic



END

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 11/1/2013 API NO. ASSIGNED: 43047541730000

WELL NAME: NBU 922-35P1CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6356

CONTACT: Laura Abrams

PROPOSED LOCATION: NESE 35 090S 220E **Permit Tech Review:**

> SURFACE: 2069 FSL 0619 FEL **Engineering Review:**

> BOTTOM: 0883 FSL 0494 FEL **Geology Review:**

COUNTY: UINTAH

LATITUDE: 39.99087 LONGITUDE: -109.39996 **UTM SURF EASTINGS: 636600.00** NORTHINGS: 4427970.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-010954-A PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit**

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting Fee Surface Agreement

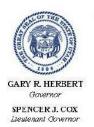
✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 922-35P1CS API Well Number: 43047541730000 Lease Number: UTU-010954-A

Surface Owner: FEDERAL Approval Date: 11/20/2013

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

RECEIVED

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SEP 1 0 2013

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

5. Lease Serial No.

APPLICATION FOR PERMIT	6. If Indian, Allottee or Tribe Name	
la. Type of Work: DRILL REENTER		7. If Unit or CA Agreement, Name and No. UTU63047A
	Triditiple Zolle	Lease Name and Well No. NBU 922-35P1CS
KERR MCGEE OIL&GAS ONSHOREMailPlaura.a 3a. Address		9. API Well No. 4304754173
1099 18TH STREET SUITE 600 DENVER, CO 80202	3b. Phone No. (include area code) Ph: 720-929-6356 Fx: 720-929-7356	10. Field and Pool, or Exploratory NATURAL BUTTES
4. Location of Well (Report location clearly and in accorded	•	11. Sec., T., R., M., or Blk. and Survey or Area
	9.990930 N Lat, 109.399931 W Lon	Sec 35 T9S R22E Mer SLB
At proposed prod. zone SESE 883FSL 494FEL 39		
14. Distance in miles and direction from nearest town or post APPROXIMATELY 46 MILES SOUTHEAST OF	VERNAL, UTAH	12. County or Parish UINTAH 13. State UT
 Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 494 	16. No. of Acres in Lease 600.00	17. Spacing Unit dedicated to this well
 Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth	20. BLM/BIA Bond No. on flore
317	8898 MD 8708 TVD	WYB000291RECEIVEL
21. Elevations (Show whether DF, KB, RT, GL, etc. 4997 GL	22. Approximate date work will start 04/01/2014	23. Estimated duration 1 9 2014 30-60 DAYS MAY 1 9 2014
The C.H.	24. Attachments	30-60 DAYS MAI
The following, completed in accordance with the requirements of	_	
Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syste SUPO shall be filed with the appropriate Forest Service Off	em Lands, the 5. Operator certification	ormation and/or plans as may be required by the
25. Signature (Electronic Submission)	Name (Printed/Typed) LAURA ABRAMS Ph: 720-929-6356	Date 09/06/2013
REGULATORY ANALYST II		
Approved by (Signature)	Name (Printed/Typed) Jerry Kenczk	a MAY 1 2 2014
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	
Application approval does not warrant or certify the applicant holyperations thereon.	ds legal or equitable title to those rights in the subject leas	e which would entitle the applicant to conduct

CONDITIONS OF APPROVAL ATTACHED Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Conditions of approval, if any, are attached.

Electronic Submission #219258 verified by the BLM Well Information System For KERR MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal Committed to AFMSS for processing by LESLIE BUHLER on 09/16/2013 ()

NOTICE OF APPROVAL



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

170 South 500 East VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: KERR MCGEE OIL&GAS ONSHORE LP

NBU 922-35P1CS

API No: 43-047-54173

Location: Lease No: NESE, Sec. 35, T9S, R22E

UTU-010954A

Agreement:

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	 Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <u>blm_ut_vn_opreport@blm.gov</u>
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	 Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 6 Well: 922-35P1CS

5/5/2014

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- Silt fencing will be used to protect cacti that are within 300 feet and downslope or downwind of surface disturbance. Fencing is intended to prevent sedimentation or dust deposition and will be evaluated for effectiveness by a qualified botanist.
- A qualified botanist will be on site to monitor surface-disturbing activities when cacti are within 300 feet of any surface disturbance.
- Dust abatement (consisting of water only) will occur during construction where plants are closer than 300 feet from surface-disturbing activities.
- Cacti within 300 feet of proposed surface disturbance will be flagged immediately prior to surface-disturbing activities and flags will be removed immediately after surface-disturbing activities are completed. Leaving cacti flagged for as short a time as possible will minimize drawing attention to the cacti location and reduce potential for theft.
- Project personnel associated with construction activities will be instructed to drive at a speed limit of 15 miles per hour on unpaved roads and remain in existing roadway ROWs at all times.
- The following considerations are required for those wells where KMG deems completion fluid recycling is appropriate based on new well density and topography:
- Temporary lines associated with recycling of completion water will be sited in existing ROWs. The pressure in the lines is less than 50 pounds per square inch and the lines are constructed of rigid aluminum; therefore, virtually no movement will occur during operation.
- If cacti are present within the 50-foot-wide survey corridor and avoidance is necessary (to ensure the line is more than 50 feet away from identified cactus), the new alignment will, if possible, be such that the cacti are topographically higher than the re-aligned line so a potential spill from the line will not impact the identified cacti.
- If it is not possible to re-align the surface lines to avoid individuals or populations of the *Sclerocactus* wetlandicus that are within 50 feet of surface disturbance, the following actions will be taken to minimize impacts:
- Prior to construction, KMG will flag individual cacti. Once pipe installation is complete, remove the flagging.
- Prior to construction, KMG will install protective fencing around the cacti if they are down gradient of the surface pipe. Once pipe installation is complete, remove the protective fencing.
- A qualified botanist will be present during construction to monitor surface line installation, when surface pipeline is within 50 feet.

Page 3 of 6 Well: 922-35P1CS

5/5/2014

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

 Kerr-McGee Oil & Gas Onshore L.P.. shall adhere to all referenced requirements in the SOP (version: "Standard Operating Practice Agreement for the Greater Natural Buttes Field", Oct 21, 2012). The operator shall also comply with applicable laws and regulations; with lease terms Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the, authorized officer.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each

Page 4 of 6 Well: 922-35P1CS 5/5/2014

encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well by CD (compact disc).
 This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 5 of 6 Well: 922-35P1CS 5/5/2014

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <u>www.ONRR.gov</u>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written communication
 and must be received in this office by not later than the fifth business day following the date on
 which the well is placed on production. The notification shall provide, as a minimum, the following
 informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - o Unit agreement and/or participating area name and number, if applicable.
 - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be
 reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported
 verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will
 be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of
 Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid,

Page 6 of 6 Well: 922-35P1CS 5/5/2014

and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
 suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
 obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 55961 API Well Number: 43047541730000

	STATE OF UTAH		FORM 9		
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010954-A			
SUNDR	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-35P1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047541730000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHC n Street, Suite 600, Denver, CO, 80217 377	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 1NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2069 FSL 0619 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	IIP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 22.0E Meridian: \$	S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
11/20/2014	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
		VENT OR FLARE	WATER DISPOSAL		
			✓ APD EXTENSION		
DRILLING REPORT Report Date:		SI TA STATUS EXTENSION			
		OTHER	OTHER:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you. Approved by the Ustoberi≤i4n2014 Oil, Gas and Mining					
			Date:		
			By: Basquill		
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE			
Kay E. Kelly	720 929 6582	Regulatory Analyst			
SIGNATURE N/A		DATE 9/24/2014			

Sundry Number: 55961 API Well Number: 43047541730000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047541730000

API: 43047541730000 Well Name: NBU 922-35P1CS

Location: 2069 FSL 0619 FEL QTR NESE SEC 35 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 11/20/2013

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- mig is a silverment of some normal relation of the approximation, named and all the sources.
• If located on private land, has the ownership changed, if so, has the surface agreement been updated? Q
 Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No
 Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No
 Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No
• Has the approved source of water for drilling changed? 🔵 Yes 🌘 No
• Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No
• Is bonding still in place, which covers this proposed well? Yes No
nature: Kay E. Kelly Date: 9/24/2014

Sig

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 67371 API Well Number: 43047541730000

	STATE OF UTAH		FORM 9		
1	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010954-A			
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-35P1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047541730000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	Ph h Street, Suite 600, Denver, CO, 80217 37	IONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2069 FSL 0619 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESE Section: 3	HIP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 22.0E Meridian:	S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
7	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
11/2/2015	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION		
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
42 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all p		· 		
Kerr-McGee Oil & G an extension to this	tas Onshore, L.P. (Kerr-McGee) APD for the maximum time all with any questions and/or com	respectfully requests owed. Please contact	Approved by the Unakembleron3912015 Oil, Gas and Mining		
			Date:		
			By: Docylll		
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE			
Jennifer Thomas	720 929-6808	Regulatory Specialist			
SIGNATURE N/A		DATE 11/2/2015			

Sundry Number: 67371 API Well Number: 43047541730000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047541730000

API: 43047541730000 Well Name: NBU 922-35P1CS

Location: 2069 FSL 0619 FEL QTR NESE SEC 35 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 11/20/2013

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• · · · · · · · · · · · · · · · · · · ·	o a oncommot or come monto	related to the application, which enough be verified.
	cated on private land, has th No	ne ownership changed, if so, has the surface agreement been updated? 🔘
	e any wells been drilled in the irements for this location?	he vicinity of the proposed well which would affect the spacing or siting Yes No
		r agreements put in place that could affect the permitting or operation of thi No
	e there been any changes to osed location? (Yes (the access route including ownership, or rightof- way, which could affect the
• Has	the approved source of wate	er for drilling changed? 🤵 Yes 🌘 No
		nanges to the surface location or access route which will require a change in at the onsite evaluation? Q Yes No
• Is bo	onding still in place, which c	overs this proposed well? 🌘 Yes 🔘 No
nature:	Jennifer Thomas	Date: 11/2/2015

Sig

Title: Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Form 3160-5 (August 2007)

RECEIVED

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT APR 2 9 2016 FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

5. Lease Serial No. UTU010954A

SUNDRY NOTICES AND REPORTS ON WELLS

DO not use the abandoned we	is form for proposals to II. Use form 3160-3 (AP		Ver	nal	UT	6. If Indian, Allott	ee or Tri	be Name			
SUBMIT IN TRIPLICATE - Other instructions on reverse side.						7. If Unit or CA/Agreement, Name and/or No. UTU63047A					
1. Type of Well				8. Well Name and No. NBU 922-35P1CS							
Oil Well Gas Well Oth		IOEL MALE	E) (T								
Name of Operator KERR MCGEE OIL & GAS OF	NSHOREE-Mail: JOEL.MALE	JOEL MALE EFYT@ANAD	ARKO.CO	М		9. API Well No. 43-047-5417	3				
3a. Address 1368 SOUTH1200 EAST VERNAL, UT 84078		3b. Phone No Ph: 720-92	(include () 9-4426	ENEC)	10. Field and Pool, or Exploratory GREATER NATURAL BUTTES					
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description)		JUN	1 3 201	ĥ	11. County or Parish, and State					
Sec 35 T9S R22E Mer SLB N 39.990930 N Lat, 109.399931		DIV	'. OF OIL			UINTAH CO	UNTY,	UT	,		
12. CHECK APPR	ROPRIATE BOX(ES) TO	INDICATE	NATUR	E OF NO	OTICE, RE	EPORT, OR OTH	HER D	ATA	,		
TYPE OF SUBMISSION			Т	YPE OF A	ACTION						
Notice of Intent	☐ Acidize	☐ Dee	pen		☐ Producti	ion (Start/Resume)) 0	Water S	hut-O	ff	
_	☐ Alter Casing	☐ Frac	ture Treat		☐ Reclama	ation		Well In	egrity		
☐ Subsequent Report	□ Casing. Repair	☐ Nev	Construc	tion	☐ Recomp	lete		Other			
☐ Final Abandonment Notice	☐ Change Plans	Plug	and Abar	ıdon	☐ Tempor	arily Abandon	C Pi	hange to	Origir	nal A	
	Convert to Injection	☐ Plug	Back		☐ Water D	Disposal					
following completion of the involved testing has been completed. Final Ab determined that the site is ready for fit Kerr-McGee Oil & Gas Onsho extension to this APD for the nundersigned with any question AVD 5/12/14 NEVA 2014-011 E	nandonment Notices shall be filed nal inspection.) re, L.P. (Kerr-McGee) responsive allowed. Pleas naximum time allowed. Pleas and/or comments. Than	d only after all opectfully requesse contact k you.	requirement Jests an	s, including	g reclamation	VERNA ENG. A GEOL. PET. RECL	L FIE	D OF	r has		
14. I hereby certify that the foregoing is	true and correct. Electronic Submission #3 For KERR MCGEE Committed to AFMSS fo	OIL & GAS	ONSHORE	e, sent to	the Vernal	-					
Name (Printed/Typed) JOEL MAL	EFYT		Title F	REGULAT	TORY ANA	ALYST					
Signature (Electronic S				4/29/201						<u> </u>	
	THIS SPACE FO	R FEDERA	L OR S	TATE O	FFICE US	E ield Manager					
Approved By			Title			eral Resources		MAY	12	2016	
Conditions of approval if and, are attached certify that the applicant Kolds legal or equivalent would entitle the applicant to condu	itable title to those rights in the		Office	VERN	KAL FIE	LD OFFICE					
Fitle 18 U.S.C. Section 1001 and Title 43 V States any false, fictitious or fraudulent s					llfully to ma	ke to any department	or agend	y of the U	Inited		

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

CONDITIONS OF APPROVAL

Kerr McGee Oil and Gas Onshore LP.

Notice of Intent APD Extension

Lease:

UTU-010954A

Well:

NBU 922-35P1CS

Location:

NESE Sec 35-T9S-R22E

An extension for the referenced APD is granted with the following conditions:

- 1. The extension and APD shall expire on 05/12/2018.
- 2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777

Sundry Number: 75818 API Well Number: 43047541730000

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010954-A			
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-35P1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047541730000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 720 929-	9. FIELD and POOL or WILDCAT: 6.4151.6TUER:AL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2069 FSL 0619 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 35 Township: 09.0S Range: 22.0E Meridi	ian: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
11/2/2016	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION		
Report Date:		OTHER	OTHER		
	WILDCAT WELL DETERMINATION	U OTHER	OTHER.		
Kerr-McGee Oil & G an extension to this	Gas Onshore, L.P. (Kerr-McGe APD for the maximum time with any questions and/or co	ee) respectfully requests allowed. Please contact	Approved by the		
			Date:		
			By: Boogysill		
NAME (PLEASE PRINT)	PHONE NUMB	ER TITLE			
Joel Malefyt	720 929-6828	Regualtory Analyst			
SIGNATURE N/A		DATE 11/2/2016			

Sundry Number: 75818 API Well Number: 43047541730000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047541730000

API: 43047541730000 Well Name: NBU 922-35P1CS

Location: 2069 FSL 0619 FEL QTR NESE SEC 35 TWNP 090S RNG 220E MER S

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• Has the approved source of water for drilling changed? Yes No
 Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No
• Is bonding still in place, which covers this proposed well? Yes No
nature: Joel Malefyt Date: 11/2/2016

Sig

Title: Regualtory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.